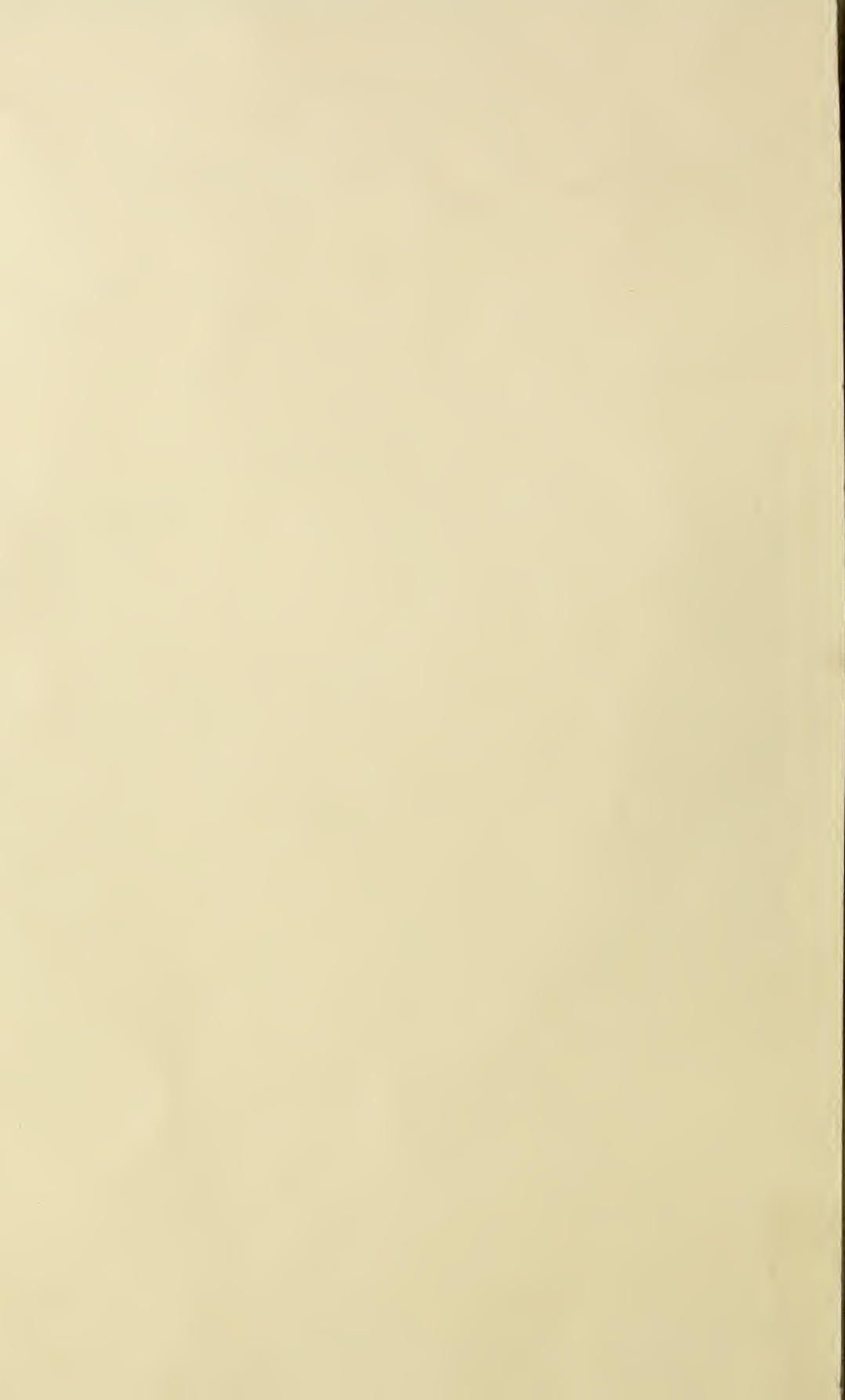


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VOLUME XXV

NUMBER 6

U. S. Department of Agriculture.

THE AGRICULTURAL STUDENT

OHIO STATE UNIVERSITY, COLUMBUS, OHIO



FEBRUARY, 1919

FARMERS' WEEK

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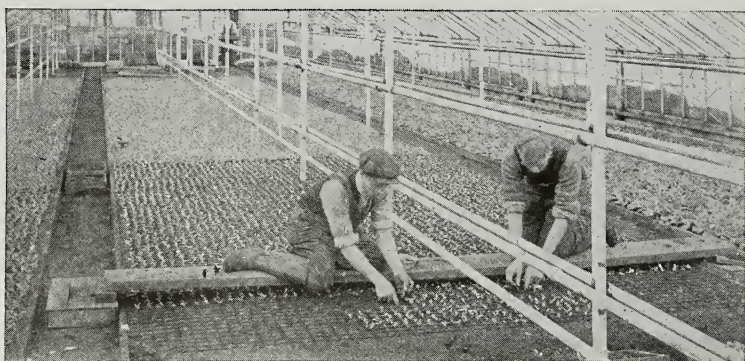
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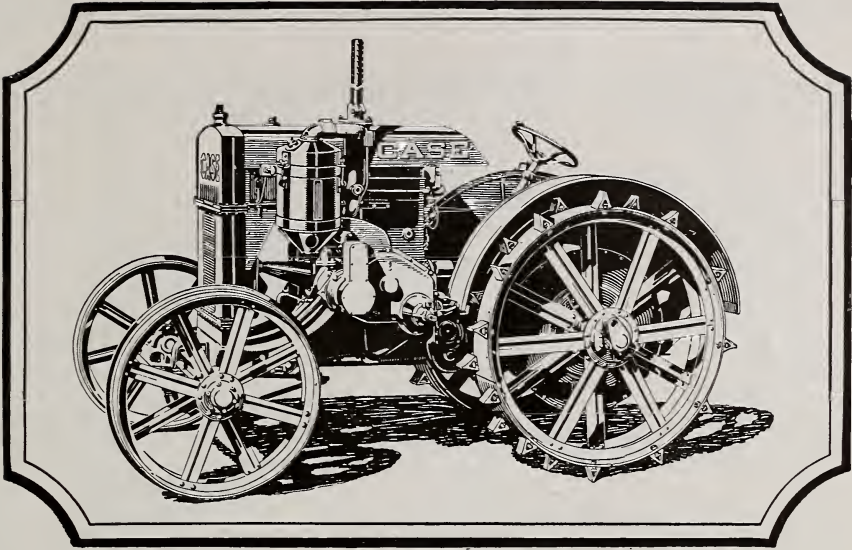
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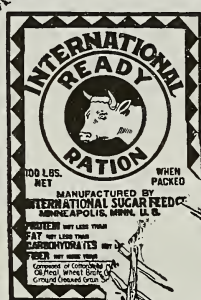
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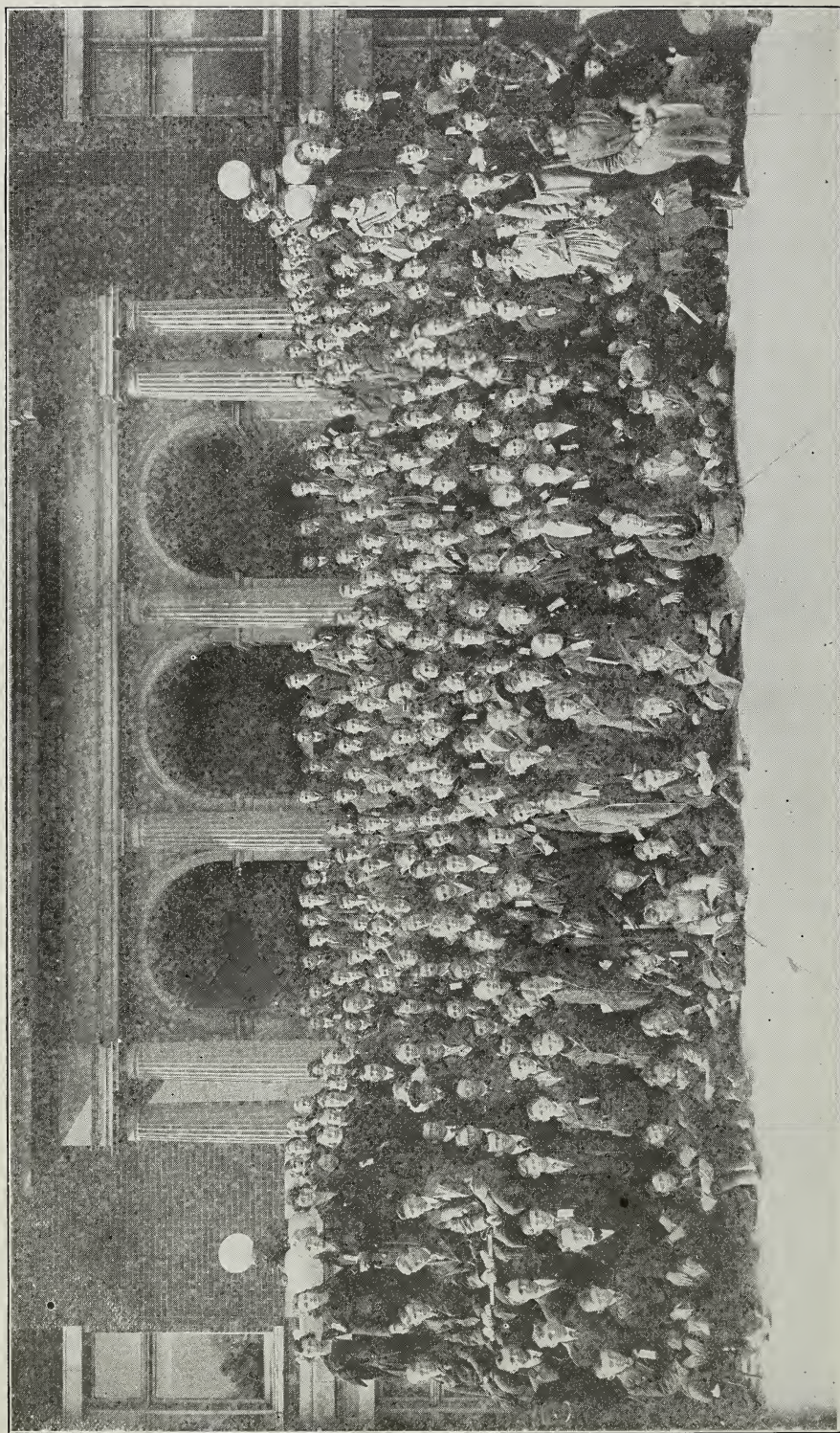
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County and state champions of boys' and girls' clubs at Farmers' Week

The Agricultural Student

VOL. XXV.

OHIO STATE UNIVERSITY, COLUMBUS, OHIO, FEBRUARY, 1919

No. 6

OUR LAND POLICY—WHAT IS IT TO BE?

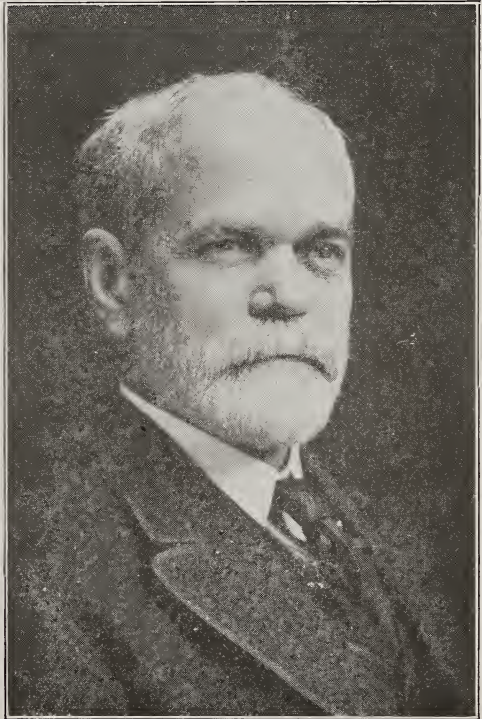
By E. DAVENPORT

(Dr. Davenport is director and dean of the University of Illinois Agricultural College and Experiment Station. In the form of an interesting story Dr. Davenport discusses the important questions of land inheritance and purchase.)

HEINRICH SCHWARTZ labored a whole year in his native country for eighteen dollars with which to pay his passage to America, the land of promise. Arriving, he worked a season of eight months for a farmer at fifteen dollars a month and received every dollar of the money at the end of the season, having spent nothing. He paid one hundred dollars of this for a "wild eighty" of land and with the twenty dollars paid his board until spring, spending the winter in chopping down the heavy timber on a portion of his purchase. He worked again the succeeding season, knocking off long enough to "scratch in" a little patch of wheat. With his second season's earnings he purchased a yoke of oxen and a log chain, a cook stove and a few dishes. Neighbors met one day and put up a log house. There was a wedding. The bride's father furnished a "new milch cow," and the family was established.

Heinrich did not yet have a farm, but within two years from landing he had a home where sons and daughters were born in due season. He is living yet, the father of an honorable family, and I know him well. This story could be duplicated indefinitely; with slight variations it would be the history of thousands of young couples who settled in the timber land of the United States something over a half century ago, for

America was conquered, not by an invading army, as in the case of Europe, but by the individual settler with his axe and gun. We began, not under a feudal system, but under the homestead



Dean Davenport

system, and one of the live questions of today is, "What shall be the land policy of this great country?" It was easy enough a half century ago for any right-minded young couple to secure,

before they were twenty-five, a home of their own. How is it now?

There will graduate from some fifty colleges of agriculture this year a good many hundreds of landless young men just as anxious to own their own homes as was the poor German peasant who was willing to work three hundred days for eighteen dollars in order to begin to realize his dream. There will graduate from the Home Economics departments of the same colleges hundreds of young women who will make excellent wives for these would-be farmer boys of the twentieth century. The great question with these young people is "how and when may they hope to own a country home?" They are equally industrious with Heinrich and his frau. They know the business of farming better than did the young German and his wife. They are qualified to raise families of typical American citizens, and if they have the opportunity they can make notable contributions not only to the wealth of the world but to the ideals and the achievements of the twentieth century civilization.

It will be said that there are still unoccupied lands. But where are they? Instead of securing a home first and the farm afterwards, they must now secure the farm first and make a home as they can. It may be said that if they have the advantage of a college education they ought to be able to take care of themselves, and so they can. But this perplexing problem does not belong wholly to the young people; it is the problem of the public as well, and it is leading us these days to consider somewhat carefully not only what we have done in the past, but what we may do in the future to prevent this country from developing a kind of feudal system which may not be different in its conse-

quences from that which has wrecked the peace of Europe.

In the early days, the government made it easy for the young to get a "toe holt." In the meantime, what has been and what is the policy, or the lack of policy, with regard to ownership and occupancy of American lands?

The early settler on the prairie fared even better than Heinrich. He generally came with a little more money and bought his lands for the most part at about fifty cents an acre. He had no timber to clear away. He bought larger tracts and had a producing farm in half a dozen years. So were developed the prairies of Illinois and Iowa.

Following the civil war came the homestead laws under which the West and the Northwest were developed; the soldier claims and the tree claims by which it was possible for an individual to acquire a considerable tract of land by the mere act of residence and a nominal improvement. So were the last of the public lands absorbed. The timber belts were murdered by speculators and abandoned before the college men of today were born.

It is said that the government has given away more land to railroads than it ever homesteaded to settlers. More than likely the statement is true, for the records show land grants to the Union Pacific of more than twelve million acres and to the Central Pacific of ninety millions—a total grant to a single transcontinental line amounting to four times the area of a state like Ohio.

More recently one of our distinguished citizens has acquired the title of "Empire Builder," but it is not so generally realized that the railroad which he represented had been granted

every alternate section for a strip of sixty miles on either side of the track. Manifestly, these lands had no value before the railroad was built, but in five years they were valued at twenty-five dollars an acre, the valuation being based wholly upon what the settlers were able to produce upon the occupied sections.

A certain eastern seed firm, a pioneer of its kind, invested some of its surplus earnings in prairie lands at the nominal government price of a dollar and a quarter or less per acre, and a kind of factory farm was established on a solid block of twenty thousand acres in central Illinois. The factory system failed, of course, and the estate was broken up into eighty and one-hundred-and-sixty acre tracts, and, for the purpose of revenue, systematically rented to "foreigners with large families."

One Lord Scully, thinking to transfer the Irish system to America began investing surplus funds in prairie lands back in the early days. The instructions to his agent were to re-invest every dollar of income from these lands but to pay out money for nothing but land and taxes. If the renter desired a fence or a pig pen, let him build it himself. In this way a good many thousands of acres of first-class American land have become permanently owned by non-resident if not non-American interests.

I met a land collector on the train last summer. He was returning from the purchase of seven thousand acres in Montana. This land had been bought with the surplus earnings from five thousand acres in Nebraska, and that, in turn, had been acquired out of the savings of an inherited holding in Iowa. This man was not a farmer and never had been. He was interested only in acquiring acres and in finding men and

boys to work them. Having started with an inherited holding so large that the income would more than support him, he had devoted his life to the rather interesting geometrical progression whereby one acre was made to earn two more indefinitely. Does anybody imagine that this sort of thing can continue? If he does, let him read the declaration of principles of the British Labor Party.

Ole Olson is a renter. He too, like Heinrich, came from across the water, but he lacked the foresight to be born early. Arriving a half century or so later than Heinrich, he became the tenant of Lord Scully and the conditions with him were not far different from those under the feudal system in Europe. His like, with variations, is to be found in every state of the Union.

It seems to be assumed today, that the only way whereby our young graduates may expect to earn a home is by beginning as a neighbor of Ole Olson, farming for a period of years on the Scully lands or others like them, and saving out of their share of what they produce something for an initial payment on a home of their own. But how old will they be when the home is paid for, and in the meantime what will be their chances of success and the risk of failure?

Unless we stop to deliberate about it, nobody realizes how rapidly all things have come to pass, nor how completely conditions have changed within a comparatively short space of time. All these things I mention have come within my own personal recollection. A great number of men like Heinrich have earned their first money on my own farm. I well remember when the Miami valley was the center of livestock production in this country, and Cincinnati was called Porkopolis. Chicago, the

third city in the world, has risen from nothing within the lifetime of men yet living, and there are men in my audience who remember back to the time when less than half of this continent was occupied, except by Indians and buffaloes; and yet within that time we have reached a condition in which it is practically impossible, even for a renter with a college education, to look forward to owning a home on the land, at least until after his family is probably grown up and gone. The thing can be achieved as a rare combination of industry, thrift, good health, and good luck; but as a business proposition the undertaking is too hazardous.

Consciously, or unconsciously, but none the less inevitably, the United States is developing its land policy, and every year which passes will establish that policy with ever increasing stability. Whoever has his ear to the ground cannot fail to hear the rumblings of agrarian discontent, a disease which has become rampant in Russia and which in one form or another is prevalent in every part of the civilized world and will prevail until better systems have been devised for transferring the ownership of land from one generation to the next.

From the nature of the case, land must change occupants with every generation—say every twenty years—and unless we can find some method by which it may also change ownership more easily than now, a permanent system of tenantry is inevitable in the country, as it is already established in the city. Fifty years ago everybody expected to own his own home whether in the country or in town. Now the first item in the budget of the city resident is the item of rent, for nobody in town, except the very wealthy, expects any more to own his home. Is that

condition inevitable in the country, and shall we be obliged to admit that it is practically impossible even with college training, industry, and thrift, for a man and his wife to acquire a farm and home except by inheritance?

For the most part it has been impossible to place a farm mortgage for a longer period than five years, or for a rate of interest other than the current banking rate for short term loans. This means that the mortgage must be renewed before the farm is fairly established or much of any payment made, because no man can establish himself on a farm and begin to get ahead within a five-year period. The renewal has been frequently a matter of grace, and many a land shark has acquired four or five of his farms by foreclosure after the land had been half paid for by hard-working young people.

The recently devised farm-loan act of the federal government is helpful to the man who inherits at least half the farm he buys, but as yet no method has been devised in this country whereby the would-be farmer can capitalize his knowledge, his industry, and his thrift. That is to say, these pass for nothing in the commercial world. He must furnish the collateral, at least to half the value of his land and improvements, even tho there is no better security in the world than that of real estate.

Can America afford to go ahead upon a system whereby it is vastly easier and more profitable to use land for speculation than to use it for farming? This is one of the questions which the American public will be obliged before long to answer. Another question is this—who after all is most interested in American lands, the individual or the public? Those of us who believe in private ownership of property would regard as a calamity any procedure

which should confiscate lands as public property. Yet this is precisely the situation that lies ahead of us unless some of the existing evils can be removed.

Why should one man be allowed to own ten farms without living on any of them, or several thousands of acres in different states with no intention of producing anything? If the capitalist will furnish money to drain and otherwise develop land that needs improving, it is one thing; but if he avoids improvements, selecting only the best lands which require nothing by way of such investment, this man is as bad as any other pirate, and some way must be found for checking his activities. Such a man adds nothing to values in the world. He simply obtains legal rights for which he has rendered and intends to render no equivalent.

I am reliably informed that some of the railroad lands, acquired free by congressional grant and held for development, have not only been increased in valuation because of what farmers have done upon intervening sections, but that sale has been refused to farmers because one individual was unable to take an entire block of several sections, even though neighbors were willing to divide the tract between them. This not only means that the so-called "empire" was built by the labor of the thousands of individual farmers, but that the intervening lands between their holdings were held in blocks which shut out the *bona fide* settler who by the time the transaction filtered down to his level was obliged to pay a price that left all the profits to the speculator, not as the reward of labor but of speculation.

The newer phase of the land question is quantitative production, which is being advocated now by those who have a somewhat extensive factory expe-

rience and who are inclined to find fault with home-building farmers for their "antiquated and wasteful" methods.

It does not require discussion to establish the fact that in the last analysis it is the public rather than the private individual who is the most interested in the land policy of this country, and it is for the public to decide whether our lands are to be regarded primarily as material for speculation, as the means of producing food, or as the homes for our people. There is no manner of doubt that every transaction in land is a matter of the deepest public concern. It is a fair question as between the interests of food production and those of home-building, but there is little room for mere speculation with no intention either to produce food or to build homes.

There is no doubt in the opinion of the writer that food can be produced most economically upon holdings somewhat larger than are necessary for the maintenance of a single family, but, all things considered, the abiding conviction of the writer is that American lands should be regarded first of all as they were regarded a half century ago, as providing homes for the people, and wherever and whenever lands are offered for rent, minimum and decent housing conditions should be required by law. So much we should declare now, and unless the present inordinate speculation in our best lands ceases, we shall soon need to find some method of retaining our lands within their legitimate uses, namely, as places for the production of food and for the building of homes. One of our greatest public enemies is the land shark, and by this I mean not the large farmer, but the land pirate who makes no use of land except as a means of profit without rendering an equivalent.

OF COURSE YOU NEED A GREENHOUSE!

By H. P. MERRICK

(Mr. Merrick is in charge of the Cleveland office of the Lord and Burnham Company. Greenhouse flowers and vegetables are as essential to our modern life as are those grown in the open. With the gardener, earliness is important but many of the growers are not cognizant of the fact that their profits are reduced by late planting. A greenhouse is needed.)

“WELL, now,” you say “that’s putting it pretty strong. Perhaps a greenhouse would be a good thing to have around, but I’ve never thought of one in the light of a necessity.”

Or, perchance, you realize the money-making possibilities of growing vegetables under glass, and say to yourself, “Yes, I know, but it takes a lot of money to build a greenhouse, and I shall have to be content to dream of one until I accumulate a goodly amount of capital.”

All of which brings to mind a little boy, whose example I shall try to emulate. As he was crudely drawing one day, his mother, looking over his shoulder, asked him what the picture was intended to represent. “Why, the angel Gabriel,” he replied. “Why, my child,” said the mother, “no one knows how the angel Gabriel looks.” “No,” said he, “but they will when they see this.”

Altho lacking the supreme self-confidence of said urchin in his efforts, perhaps “when you see” a few of the many reasons why you need a greenhouse, you will view the possession of one as a factor in your success, which cannot be ignored or even postponed.

Obviously the need for a greenhouse varies according to the purposes for which it is to be used, and these are exceedingly diverse. But it is assumed that you have adopted agriculture for your vocation and are particularly interested in knowing just how the operation of a vegetable greenhouse can increase your earning capacity.

Let’s have an old-fashioned “testimony meeting,” and give a few of the men who have “proved the pudding” a chance to speak for themselves. First, there’s the enterprising young owner of a seventeen-acre fruit and truck farm in eastern Ohio. Starting about fourteen years ago with a tiny, low-eaved greenhouse, built for the sole purpose of getting a head-start with his vegetable plants, he now has considerably over an acre under glass, and this is what he says: “For every dollar I make out-of-doors, I can make ten in the greenhouse.”

He can give you a “tip” on building, too, for he will tell you that no matter how low the initial cost of a flimsily constructed greenhouse, it is reckless extravagance to build one, for repair bills soon exceed the saving, and worse still, there is the ever present menace of the disaster which befell him.

In the earlier days, not yet having attained to this wisdom, he said to himself, “Verily, a greenhouse is a greenhouse, and I will shun those who build scientifically—but whose figure ‘seems high’—and with the sum which I possess I will buy material cheaply and abundantly, and enclose a vast tract which will yield a bountiful crop—and profit.”

But, alas! when the lettuce was crisp unto crackling the winds of winter blew and the snows fell—likewise the greenhouses; the ruin was great and Jack Frost gathered the crop.

Now the pendulum has swung, and altho there are many worthy and substantial greenhouses built of the so-

called "semi-iron" or "pipe frame" construction, he will have none of these, but insists upon the most enduring type of all-iron-frame structure obtainable.

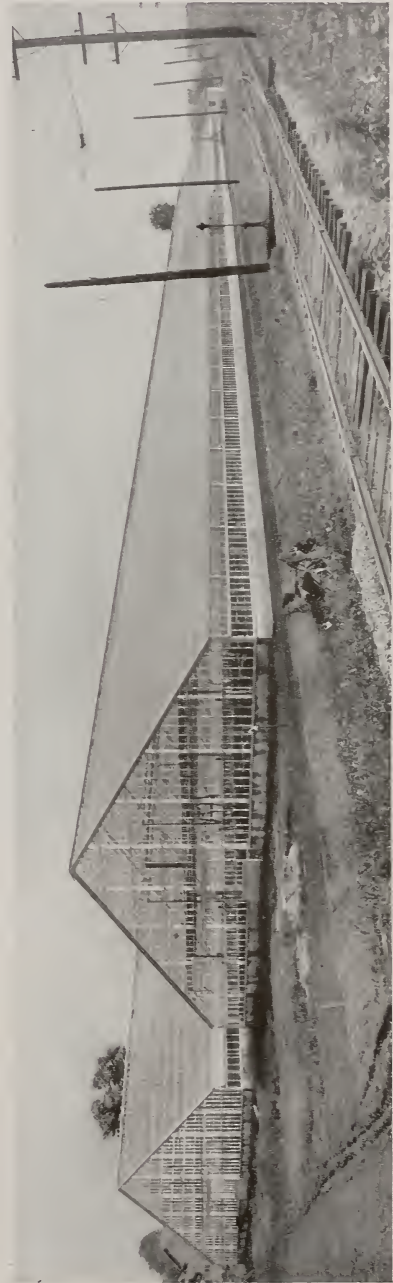
Another young Ohioan has a ten-acre truck garden under intense cultivation, and for several years has operated in conjunction with this a small greenhouse. Recently a friend asked him to what extent, and in just what way, the greenhouse had proved an asset.

"Aside from the profit on the sale of greenhouse-grown vegetables, which has been very gratifying," he replied, "the benefits have been three-fold: First, having vegetables to sell in winter, I have been able to retain as customers thruout the year, the grocers to whom I sell my garden produce, thus increasing my prestige with them and making them more loyal; second, the labor required to produce plants for setting out in the spring has been greatly reduced and is performed under comfortable conditions, for I have eliminated the troublesome preparation of hotbeds and the task of alternately covering and uncovering them to keep out the cold and let in the light and air, as the seedlings are now grown in the greenhouse until time to harden them off in cold-frames; third, the greenhouse provides pleasant and lucrative occupation for the winter months, which would otherwise be unproductive and monotonous."

"But," he continued, "I am so bubbling over with enthusiasm on the greenhouse subject, that once one turns on the tap, as you have done, I am, like the brook, apt to 'go on forever.' Of course the greenhouse is primarily a money-getter, but we small-town folk, with all our chores, shall have time for a bit of sentiment, and many are the friends to whom the carnations—for which the good wife begged house room

—have carried their message of good cheer."

Then as my friend was leaving he



The modern vegetable factory of Weiant & Sons, Newark, Ohio

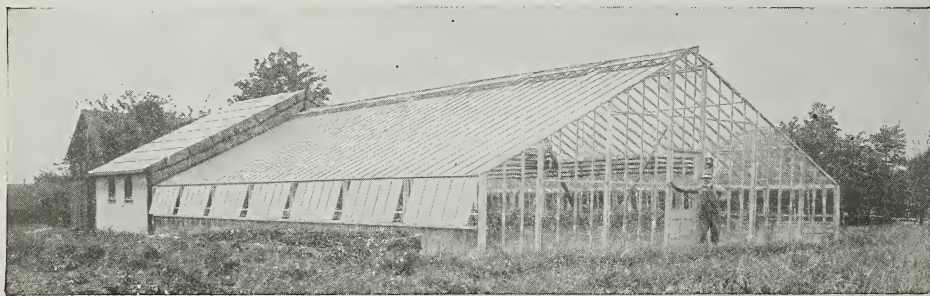
added, "If you are thinking of building a greenhouse be sure to have a well for-

mulated plan for ample extensions in the future, before you put up even the smallest house, then as your requirements demand you can increase unit by unit until your fondest hopes are realized, and have at every stage of the game an efficient and well balanced arrangement.

"Why, before I built my little greenhouse, I had the representative of an experienced firm of greenhouse builders go over my property and advise me upon the relative merits of several dif-

Yet there stands an old friend from Dayton, a genial soul but persevering, for he will not be denied this opportunity of reciting the story of his good fortune to his friends, and warning them of his mistakes, so let's hear him:

"While working at my trade of carpenter, it was always my ambition to own a farm, a dream which was finally realized and which brought to me great happiness and contentment. But after a few years I began to sympathize with



A practical greenhouse

ferent locations, not only with respect to my present house, but taking into consideration the extensive completed scheme which we planned for during our conference. Consequently the greenhouse is so located and arranged, and the heating apparatus installed in such a manner, that I can add a house from year to year at the minimum of expense and yet attain the same excellence of results as tho the entire range had been constructed at one time."

It was almost a mistake, however, to make of this an "experience meeting," for so many manifest a desire to tell us of the faith which led them to build greenhouses; of how this faith became knowledge and of how they captured prosperity in a house of glass, that while we would gladly grant speech to all, time forbids.

an imaginative animal of which I had read as a child, in a jingle something like this,—

'A spiky old Prickle-Spine shedding
His quills, got them mixed with his
bedding.

He got thru the day in a comfortable
way,

But 'twas always the night he was
dreading.'

It wasn't the night that I was dreading, however, but the long winters of inactivity, when all was going out and nothing coming in, so to rectify this I built a greenhouse twenty-eight feet wide by seventy-five feet long which proved so profitable that it was soon followed by a second and then by a third, and I am now planning for a big iron-framer sixty feet wide by seven hundred feet long."

"Briefly, that is the story of my success, and now for my mistakes—for they did occur, and largely thru listening to the advice of my greenhouse-owning neighbors, instead of heeding the building experts from whom I purchased my material. Because my neighbors used connected or 'ridge-and-furrow' houses, and were successful, I felt that I must have the same type, altho the greenhouse builders extolled the

which so troublesomely collects between the roofs of connected houses."

Instances of substantial achievement by greenhouse owners starting with small capital might be related by the thousand and in many cases the stories would partake of the spectacular. For example the men-folk of a family living in the suburbs of one of Ohio's big cities will tell you that only a few years ago they were "just farmers"—nay, that



Transplanting lettuce

merits of separated, or individual, houses."

"Since then I have visited many greenhouse establishments where the older houses were connected and the more modern ones separated and without exception the owners have assured me that by actual test the separated houses have proved their superiority from every point of view.

The large volume of heated air enclosed retains the heat longer and reduces the fuel consumption; gutters and other shade casting members are eliminated, and the roof readily frees itself of snow

they are just that, still. But those who know them will supplement their story by telling you that, altho their lives proceed with quiet dignity, they have scaled the heights of financial success and have become prominent factors in civic life. "The secret?"—O, yes! The farm which has been their ladder to prosperity, is not the farm of their forefathers—hill and dale, woodland and meadow—but a small portion of it, yet acres in extent, where nature works for them unremittingly and without ceasing in one of the largest vegetable greenhouse ranges in the country.

THE NON-PARTISAN LEAGUE: A PROMISE

By BENJAMIN DRUCKERMAN, '20

(Mr. Druckerman writes an intelligent consideration of the history and aims of the Non-Partisan League. Despite the outcome of their efforts, at present, Mr. Druckerman believes that the League stands for better farmer representation in government, a more thorough appreciation of the puzzling market question and a study of the remedy for land speculations. "It is better to experiment with policies which have in them the elements of wisdom, as well as folly, than to hold to that which is sheer folly.")

WHAT IS THE PARTISAN LEAGUE?

THE Non-Partisan League is an organization consisting of farmers. The object of this league is: First, to drive the politicians from positions of responsibility; second, to reduce the influence and power of the middleman; and third, to curb the activities of the land speculators.

This organization was conceived in 1915 in North Dakota. In 1916 it entered the political arena of that state and elected its candidate for governor, Lynn T. Frazier, and every one of its candidates for state office with the single exception of state treasurer. Its victories were equally sweeping in both branches of the legislature. It elected eighty-seven out of one hundred and thirteen candidates for the lower house and eighteen out of twenty-five candidates for the upper house. In a subsequent election it succeeded in electing its candidate for congress, J. M. Baer.

At the recent elections in 1918 its victories in that state were even more sweeping. The returns show the league to have made serious gains in neighboring states also. Thus the league has now nine of its men in the state senate of Minnesota and twenty-two in the lower house of that state. In South Dakota they have fourteen legislative candidates; in Colorado two state senators and two state representatives. In Montana the league has sixteen members in the lower house and four in the upper house. In Idaho the league has six senators and ten representatives and in

Nebraska seven members in the lower house.

The League has a membership of three hundred thousand and a fund estimated at \$5,000,000. Last summer it employed eight hundred automobiles. These machines went up the highways and by-ways of the above mentioned states agitating for Non-Partisan League principles. The work of the League, according to its leaders, goes on all the time, before and after election. Lately it has been reported to be making considerable headway in Iowa and Illinois.

The above figures do not indicate its entire strength however, as the loyalty issue played havoc with its membership. It has since been proven that this League did not merit the stigma cast upon it by its enemies. Both the Administration and Governor Capper, of Kansas, have given the League a clean bill. The war work done by the North Dakota authorities, where the League is in full control has been of an especially high character. North Dakota, it may be well to point out, had the largest over-subscription to the Second Liberty Loan of any state in the Union. The League thus far has created no new parties. It has devoted itself to working thru the political parties dominant in the different states. Thus the League is Democratic in Idaho and Republican in other states.

THE PROMISE

The Non-Partisan League marks a new epoch in agriculture. With this

organization begins an agrarian movement which is destined to play a very important part in the history of American agriculture.

The farmers as a class have formally stepped into the political field. The die is cast. They have crossed the Rubicon.

Whether this entrance shall be for the betterment of society rests entirely with the thinking elements of our country. This movement can no longer be ignored. It is assuming momentous proportions. If a menace, what shall we do to stem its onward sweep? If a promise, how may we best accelerate the movement?

A careful study of the origin and growth of the Non-Partisan League shows its success to be due to its efforts to solve three agricultural problems.

THE REIGN OF POLITICIANS

The farmers in these localities in which the League is making most headway are convinced that they are not well represented. They feel that the average legislator does not understand the problems confronting the farmer. They point to the stupid manner in which some of our state legislatures have handled the milk and other agricultural problems as proof of their assertion. They desire more legislators capable of thinking in terms of agriculture. This view is becoming more and more the prevalent one in our agricultural sections.

The truth of the assertion cannot be challenged, our state legislatures are notorious for their small numbers of farmers. The same is true of congress. Both houses, containing five hundred and thirty-one members, have only eight men who even claim to be farmers.

The Non-Partisan League aims to remedy this difficulty by the simple expedient of electing farmers to our state

and national legislative bodies. The League is fulfilling a long-felt need. Some of our keenest agricultural thinkers have long felt the need of such a policy. The League is making this a reality. The states under its control have legislators thoroly familiar with agriculture and its needs.

THE THIRTY-FIVE-CENT DOLLAR

The Non-Partisan League is the only political organization that recognizes that the dominant agricultural problem is the market problem. They alone, it seems, are aware of the fact that the questions which agitate our agricultural communities are not those that treat of bumper crops. The League believes good farming to be no remedy for low prices. The recent reports issued by the Income Tax Commission show this to be true. The farmer stands well toward the bottom of this list. A system of marketing which gives the producer thirty-five cents of the consumer's dollar and the rest to the distributor needs serious attention. The League aims to war on the thirty-five-cent dollar by having the state replace the middleman to a large extent. They propose to do this by state ownership of grain elevators, flour mills and packing plants. To the cry that this is Socialism they answer that this is begging the question. They point out that the Federal government is spending millions upon building a merchant marine so that our business men may be able to compete more efficiently for the markets of the world. Pray, what can there be wrong in Uncle Sam or the individual states making a somewhat similar effort on behalf of the farmers? The question is not is a measure socialistic but is it practical? Will it add to the sum of human happiness?

To those who advise co-operative ex-

changes as the solution of the thirty-five-cent dollar, they point out that in California, where co-operative effort has been developed to the highest degree, the citrus fruit growers realize less than forty cents of the consumer's dollar. It may be that state ownership of the means of distribution will not work out quite as well as its adherents would have us believe, but it is an experiment worth trying.

Our present method of unplanned distribution is absurd and unfair to the producer. Our present method of marketing has had, perhaps, as large a share in driving our agricultural youth into the cities as any other factor. The Non-Partisan League is a distinct blessing in that it is arousing the thinking elements of our country, and emphasizing the necessity of solving the marketing problem.

THE REIGN OF LAND SPECULATORS

It is becoming increasingly difficult for young men to become farm owners. This is a fact that has long been recognized by our leading agricultural thinkers. Dean Davenport has pointed out that such a state forebodes ill for our country. He has further pointed out that half of our best lands are owned by one group and worked by another. Land speculators have bought up much of our best land and are holding out for fabulous prices.

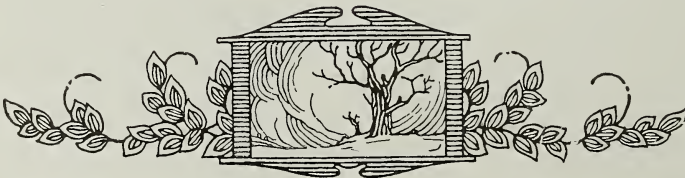
Tenantry is on the increase. In

1880, one out of every four farmers was a tenant; in 1910 one out of every three farmers was a tenant. We are fast approaching a condition similar to that of England, where nine-tenths of the farmers are tenants. English statesmen are trying to remedy the problem by limiting the conditions of inheritance, by progressive taxation, and by applying the principle of excess profits. Shall we wait until we are in a similar condition before we rouse ourselves to the need of a land policy, or shall we apply ourselves to the solution now?

The Non-Partisan League has a solution. It is the single tax and state land banks. "The Single tax," say the Non-Partisan League leaders, "will release much land from the clutch of land speculators, and the state bank will make it possible for our young men to become farm owners by advancing them money at a very reasonable rate of interest, somewhat as is the practice in New Zealand.

Will these solutions work? Who knows? But surely it is better to experiment with policies which have in them the elements of wisdom, as well as folly, than to hold to that which is sheer folly.

Is the Non-Partisan League a menace or a promise? Shall we accelerate or retard this movement? The farmers of North Dakota think this movement a promise. What think you?



THE NON-PARTISAN LEAGUE: A SOWER OF FALSE ECONOMIC DOCTRINE

By RUDOLPH LEE

(Mr. Lee is editor of the Long Prairie [Minnesota] Leader. Believing that the Non-Partisan League is too socialistic in its ideals and so organized that it appears to be too much of a panacea for the ills of farming, Mr. Lee fears that ownership by the state is only another name for management by the politicians.)

THE problems of reconstruction which must be solved in these next few years following the war will affect no class of people more than they will affect the farmer. Without question there are to be some radical economic changes, and among these changes are to be those affecting the problems of distribution, together with those having to do with a new relationship between the farmer who produces and the consumer who buys.

The prosperity of the farmer, together with the prosperity of the nation in general, is widely concerned in the wise solution of these problems. There cannot be that distribution of wealth so necessary to the national happiness and content and to the attainment of the American ideal of opportunity, until some system is worked out that will shorten the distance between the producer and the consumer. These are great problems and they cannot be solved in a day or a year. While progress can be made day after day and year after year, the ultimate and happy solution can come only as a result of growth and development, a growth and development which are guided and shaped from period to period as experience suggests.

The broadly practical lines along which this development is to proceed, have been successfully worked out by farmers, agricultural school experts, and state officials, until there seems no question but that the right road is known and the signboards are pointing in the proper direction. Improvement

of the farm factory for larger production and better quality, the settled policy of a farm management that undertakes to "finish" the product on the farm, all combined with business-like systems of community marketing through the use and development of cooperative organizations for that purpose—these are the broadly practical lines along which the farmer and those associated with him are proceeding toward the right and ultimate solution of the problem.

The hard-headed man to whom the common sense of a proposition appeals—the man who knows that "you cannot get something for nothing in this world," and that the final success of any kind of human effort is, in the end, and at last, dependent upon individual initiative, thrift, energy and industry—knows deep down in his practical nature that the real solution of these farm problems is along the lines named, and he is getting ready as rapidly as he can to travel the road.

However, the road necessarily travels much unknown country, and there are forces and agencies constantly at work putting up signboards which would lead the procession from the main road off onto bypaths where the procession is calculated to get tangled up and, if not lost altogether, at least much delayed.

One such effort is that now being made in several northwestern states to build up the Socialist party under the name of "The Non-Partisan League." This political organization with its

socialist leadership proposes to substitute for the practical solution of the problems of the farmer a program of state ownership of everything having to do with farm affairs, particularly with the marketing of farm products. For instance, the League proposes to make wheat raising profitable by having all the people of the state get together and build, own and manage the elevators. It would insure the success of beef and pork production by having the people own and operate the packing houses and all the other paraphernalia connected with the meat manufacturing business. It even proposes in order to make dairying profitable to have the state build and manage the creameries, while a platform plank much referred to by the League speakers is that which seeks to protect the growing crops by having the people of the state go into the hail insurance business.

Most of the strongest, as well as ablest, Socialist orators and agitators of the nation have headed into the northwest the past three years to go to work for the League, and as the pay has been good and the field large they have taken on a personal prosperity which, in comparison with their former lean and hungry years, has at least impressed themselves that there is a Utopia connected with the scheme somewhere. So that the zeal and fervor with which they picture the wonderful results for farm prosperity that are to follow state ownership has developed a propaganda which, for elaborateness of detail, system of spread, and thoroughness of cover probably excels any other Socialist effort the country has ever seen.

In North Dakota and in some counties of other northwestern states these Socialist organizations have literally swept the farmers off their feet. In a

general way Socialism has never before been preached to the farmers of our nation, and up here in the northwest they have been lured by its plausibility to such an extent that for the time being at least natural caution and hard-headed practicability have not had a chance to assert themselves.

Several things, however, have happened in the northwest the past several months to show the farmer that back of the very plausibility of good argument and pleasing word prophecy there are many pitfalls and a winding road that is as likely to lead to disastrous ruin as it is to desired results. When Governor Frazier, elected by the League in North Dakota, addressed the legislature on the subject of ways and means of starting the state ownership program in that state, he set the cost of the "start" at three hundred million dollars. Inasmuch as North Dakota is a small state, having a population not much more than the population of the three cities, St. Paul, Minneapolis, and Duluth, the farmers of other states began to ask themselves, "If this is the cost of just the 'start' in the small state of North Dakota, what kind of a note am I endorsing to help establish this system in my state?"

The League made rapid progress as long as it stuck to finding fault with present farm conditions. Its troubles began when it undertook to offer remedies. At the election last fall it elected its ticket in North Dakota but lost out heavily in every other state. In Minnesota, where it had made rapid progress during the incubation period of agitation, it was overwhelmingly defeated when the test came as to the adoption of its state ownership program. Its state ticket was badly distanced and notwithstanding it put up a legislative campaign in which it was charged that

the League spent more money than had ever before been spent in the history of Minnesota politics, it elected only twenty-two house members out of one hundred and thirty-two, and only nine senators out of sixty-three. In South Dakota its defeat was even more decisive, while the citizens rejected its program in Montana, Idaho and Colorado in no uncertain fashion.

The defeat of the League in the election in northwestern states this year was due almost entirely to a realization by the farmers and other citizens that the Socialist program of state ownership as a solution of problems of the farm is a mistaken program calculated only to lead the farmers off the right road and down into the bogs and swamps of still more serious troubles than any now contained in the problems they have. State ownership sounded well as long as the agitator could clothe the state with the miraculous both as to intent and power, but when calm consideration convinced the farmers that ownership by the state was only another name for management by the politicians, they decided that their own plan—that is, cooperative ownership and management—altho a little slower of accomplishment, had at least the certainty of success. So they rejected the League. That is, they refused to heed the beckoning of the Socialist signboard and decided to stick to the original blazed trail of cooperative effort.

There is no gainsaying the fact, however, that the League has many members in the northwest and that it is a strong and powerful political organization, but I think it a statement of fact to say that the strength of the League and the secret of its growth has been due to the well known clever and adroit way the Socialist agitator can rub salt

into wounds. Taking up the evils that do affect the farm industry, the Socialist agitator, by magnifying them, harping on them, in many cases misrepresenting the facts, and all the time stabbing deep with the dagger of prejudice, has made many farmers believe that they are abused, wholly without friends and defenseless politically. It has been a case of winning the confidence of the patient by sympathetic description of the pain. This method of securing a following is not new. We all like to tie up to the person who commiserates with us. The patent medicine salesman knows of this human weakness and sells many bottles of his elixir by picturing the ache in the insides of the sallow-faced man a little better than he can do it himself. Hence it has been that thousands of our citizens, listening to an appealing diagnosis of farm abuses, have done the natural thing and have assumed that a man who could so truthfully describe the sore spot must have the proper remedy. Hence the growth of the League. Its general defeat later over the northwest can be attributed to the fact that when election day came and the time arrived for an actual and final decision on the remedy, the farmers hesitated.

They say that he who hesitates is lost, but while the farmers did the hesitating, in this case it was the League that lost. This does not by any means indicate that the League is down and out. Far from it. Socialism thrives in adversity and the farther away it is from having to apply its doctrines the safer the ground upon which it stands and the more aggressive is its propaganda. Thru the League's system of collecting dues from members (\$8.00 per year collected two years at a time in advance) it has a large and powerful

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THE NEXT TEN YEARS OF AGRICULTURE

By B. H. HIBBARD

(Mr. Hibbard is professor of the Department of Rural Economics at the University of Wisconsin. The future will demand greater business ability on the part of the farmer than ever before.)

THE past few years have been characterized by uncertainties, by violent changes in prices. While there have been numerous complaints, due to a failure to make what have seemed to be fair returns on many farm operations, it must be admitted that the farmers as a class have made more money during the years of the war than ever before. So far as the facts are known, the farmer's labor income is double what it was before the war.

We are now at the crest of the wave of high prices. The wisest man does not know exactly what is going to happen, but the safe thing is to expect and plan for lower prices on most farm produce. Fortunately, the lowering of prices is not coming in the form of a crash. Conditions following the war are so closely connected with those during the war that the high levels reached between 1914 and 1918 are sure to be projected over the ensuing months with only moderate downward trends.

The decreases in prices will not be uniformly spread over all commodities. For example, wheat was piled up awaiting shipment. It is already on the move and prices in England are very much below those of a few months ago. On the other hand, there was no surplus of meat and dairy products at all comparable, either at home or abroad, with the accumulated surpluses of wheat. In consequence, the prices of meat, animals, dairy products, poultry, and poultry products have suffered little or no decline since the armistice was signed.

So far as the feeding of many people out of American supplies is concerned,

the effects of the war are not yet over. Europe is hungry, and while largely poverty stricken, there will be plans devised by which the producers will be paid for the goods, and the prices will remain high for many months—and the goods wanted at the high prices will be largely meat, dairy products, and wool.

Farming has been prosperous during the past few years. During the next few years the prosperity will depend more on the keen business ability of the farmer himself than has been the case during the war. Since the war has been on, almost anything in the nature of food stuff has been so in demand that it has found a market at high prices. During the ensuing ten years, competition will make itself felt as in the past; some products will be wanted more than others. The prosperity of the farmers will, as is normally the case, begin to distribute itself more in accordance with ability than has happened during the immediate past. While prices are rising everybody prospers. When prices fall the prosperity becomes difficult, but the able man meets the problem face to face, and is promptly readjusted and again getting along well. The man who trusts to luck doesn't have any luck on such occasions. He is the man with inferior stock, with a farm poorly organized, with fields producing mediocre crops. The period of falling prices is to him one of terror. He sees his profits vanish. To the able man the actual price level is of less consequence. He knows that values are relative, and by readjusting can bring himself to a favorable position with respect to the lower prices.

However, prices are not going back to the pre-war level. They are up to stay; certainly for a long time. The position of the farmer can be likened to that of a boy walking a tight-rope. He was in little danger at the low levels, for no matter what mistakes he made he could always start over. Now the tight-rope is stretched at a much higher level, and mistakes are dangerous. The farmer of the future must be a much better business man than the farmer of the past ten years. He must get a world vision; must know what the world wants and be prepared to provide it. The pace will be swifter. Decisions as to tractors, for example, are costly if they are wrong decisions. On the other hand, a failure to make a decision may likewise be fatal.

Following the Civil War agricultural

problems were much more restricted. The food supplies of the world had not been greatly disturbed. The introduction of labor saving machinery would have thrown some men out of employment had it not been that the development of the West absorbed all the energy available. The depression of 1873 and following was due to over-production. It is hard to see how we can have over-production now.

The expansion in agriculture for the next ten years in America must take the form of more intensive use of the farms now developed rather than in the development of new land. During the war we have exploited; now we must retrench, and getting back to a solid foundation look forward to normal, but strenuous times, in which the rewards will be distributed in proportion to brains rather than brawn.



HOW TO MAKE A GOOD SPEECH

By FRANK P. GRAVES

(Dr. Frank P. Graves is Dean of the School of Education of the University of Pennsylvania and a former professor of Ohio State. Before the Farmers' Institute Normal Convention in Columbus, October 10, Dr. Graves gave two very interesting talks on how to deliver an interesting and instructive speech. The "Agricultural Student" for December and January contained the first two installments of his article.)

WE have gone into the matter deeply enough to realize that the task of lecturing acceptably at a farmers' institute is not an easy one, and that the making of an instructor for such occasions is a serious business. We saw that the farmers' institute instructors of any state are necessarily a set of select men. Their job is so difficult that all except the most competent are necessarily weeded out. They have to be practical and successful farmers with considerable ability and a good education (many have had the benefit of a college course in whole or part), and they must keep up to date. They must make constant visits to the agricultural colleges and experiment stations of their states, attend and study the talks and material of agricultural conventions of various sorts, and occasionally come to an institute normal to listen to the words of wisdom delivered by various agricultural specialists.

More than that, unlike the lecturers in the colleges, they have to get their message "across," or go out of business. If so severe a test were to be applied to the teaching of our universities, many a faculty would look like a Hun regiment caught upon "no man's land" by the raking fire of a Yankee machine-gun. And yet the class with which the institute instructor has to deal constitutes a far greater problem than that of the college teacher, because it is so mixed and heterogeneous, and the time that he has to deal with it is so brief. A farmers' institute usually lasts only two days, and the audience consists of

farmers and villagers, old and young, male and female, rich and poor, high and low, educated and uneducated, truth-seekers and loafers. They have but few interests in common, and are anything but an easy audience to handle.

SAYING JUST ENOUGH

Under these circumstances, a farmers' institute instructor is in great danger of falling into one of two opposite errors. He runs the risk of undertaking too much or too little. He may despair of being able to instruct the farmers, and so seek simply to interest them and keep them good-natured and quiet, or he may attempt to treat his subject exhaustively and succeed in exhausting his hearers. Either of these errors is costly, and, if persisted in, is ruinous to the man's efficiency at an institute. He has no right to unload all his furniture upon an unsuspecting audience at so short a notice. If he does, they will quickly get a surfeit and leave him. Unlike the young people in a university class, they do not have to stay, "willy, nilly." And when they are bored, it becomes "nilly." Nor, on the other hand, is it sufficient to succeed in merely interesting a farmer audience. The purpose of good salesmanship is to secure an order. If the farmers are not inspired by the instructor to go home and carry into practice something they have learned from him, his work has been a failure, no matter how "interesting" it may have proved. Unless the farmers' institutes actually improve the agriculture of the state, it is doubtful

whether the legislature is justified in maintaining them.

A score of years ago a prominent dramatic critic told us that there are two occasions upon which a man must speak: First, "When he has something to say," and second, "When he has to say something." The latter type of effort is confined to after-dinner toasts, dedications, commencements, and political rallies, but has absolutely no place at a farmers' institute. On such an occasion the talk consists largely of froth. Success is secured by *pretending* to say something and getting thru with it as soon as possible. A little compliment, a mild rallying, or "joshing" of the presiding officer, a confirmation of some ancient platitude or truism uttered by the preceding speaker, a bit of "taffy" for the audience, a story or anecdote, a commonplace or two, and the trick is turned.

SAYING SOMETHING

But the farmers' institute is not so easily served. The instructor not only has to say something that is interesting, but he must have something to say and impress his audience with the importance of transmuting his words into actions. This, then, brings us to one important question today—how shall the institute instructor organize and arrange his material so as to hold his audience and teach them something worth while? Is it possible to harmonize interest and instruction? It not only is possible, but neither one can be secured without the other. No instruction can ever be given when interest is absent, and nothing is intrinsically interesting that is not instructive in some way. That we may not merely juggle with words, let us inquire what we mean by "interest" and when a talk is "interesting."

TOUCHING OUR INTERESTS

We feel "interest," when the subject under consideration seems to relate in some way to our life, and a talk becomes interesting when it involves this quality of touching our life. There is always accompanying interest a species of pleasure tone, a sort of glow and feeling that "this suits me" or "this is of value to my life. Some one once said that "interest is a kind of hitchedupness." It is the sole guarantee of attention, for interest and attention are but one and the same process viewed from different angles. The production of interest will largely depend upon the way in which an instructor arranges his material. Often the boy who has little interest in the multiplication table and is set down by the teacher as a hopeless dunce will astound her by committing several pages of batting averages from a baseball guide within a few minutes outside of school. If the teacher had been wise, she would have had that boy learn his multiplication table by building something—an actual table, a chair, a bench, or a house. He would, by this appeal to his natural constructiveness, soon have seen the necessity for knowing what 9 times 3, 2 times 7, 8 times 4, 5 times 6, etc., are, in order that he might further his own interests in life, and then you could not have kept him from learning them, if you would. We have shown a similar stupidity in trying to teach boys and girls about valleys and mountains, lakes and rivers, plants and animals, villages and cities from books, when nature and the real life about them contained examples that really appealed to them.

This secret of interesting was understood by Henry Ward Beecher, the great preacher. He attained to his striking success in the pulpit by giving

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FARMERS' WEEK, 1919

ANIMAL HUSBANDRY DISCUSSIONS

SHEEP TALKS

Professor C. S. Plumb opened the sheep day program by an address on "The Scourge of the Dog." He presented figures showing that in the history of Ohio \$7,000,000 had been paid in fees for killed and wounded sheep. Professor Plumb compared the Ohio sheep law with that of Pennsylvania and expressed regret that Ohio does not have a more workable law. He urged that steps be taken to influence the passage of a bill that would correct some of the present difficulties.

In his discussion of internal parasites of sheep, Dr. L. P. Beechy urged that sheep men acquaint themselves more with the life cycle of the various pests which infest their flock. Dr. Beechy said that personally he preferred the nicotine dip for sheep tick and in case it was used the sheep should remain in the dip for at least one minute. In commenting on the use of coal tar dips, Dr. Beechy said that care should be taken that hard water is not used. If soft water is not obtainable, the hard water should be softened with about four pounds of sal soda to one hundred gallons of water. The most common parasite of Ohio sheep, he stated, was the stomach worm and recommended one and a half to two ounces of a one percent solution of copper sulphate.

"Sheep husbandry is divided into growing and selling phases, and if we do the first well the second is half done," stated Professor W. C. Coffey of the University of Illinois. Professor Coffey

says he believes in getting the lamb crop on the market early, especially before the weather becomes hot and the lambs lose their baby fat. Professor Coffey spoke of the tendency of too many shepherds to market their lambs undocked and uncastrated, and as a consequence not only reducing their prices but prices of sheep in general.

BEEF CATTLE TALK

The increasing interest in beef cattle production in Ohio was manifested in record breaking crowds that were out to hear the last word in cattle feeding and breeding.

Wm. Pugh, former head of the department of animal husbandry, and now farming and feeding beef cattle at Ravenna, Ohio, spoke on the subject of economic rations. Mr. Pugh spoke of the outstanding advantage of the baby beef feeder who can make more beef from his given tonnage of feed than the man who is handling older cattle. "Market-topping is in itself a rather foolish aspiration, and almost criminal to our pocketbooks," commented Mr. Pugh.

Mr. Pugh says he believes in good cattle, but at the same time there may be more money in buying cheaper grades of cattle at certain seasons of the year. Great stress was placed on the possibility of limiting the amount of corn consumed by the steers, and replacing it by silage. Mr. Pugh presented figures from the Iowa Experiment Station, in which steers fed on a full corn ration of fifteen pounds of corn per day only

outsold those getting a twenty-five percent corn ration thirty cents per hundred weight. The profit on the light-fed corn steers was much greater.

In case young stuff is fed, the speaker stated that he would be willing to pay from five dollars to eight dollars per ton

more for linseed oil meal than for cottonseed meal, but in case heavy cattle are fed he believed there was no difference in the value of the two supplements. However, Mr. Pugh emphasized that supplements are absolutely necessary in order to get the best results.

\$1,700 FROM A FARM POULTRY FLOCK

By A. B. DANN

If one were to judge by the attendance at the poultry lectures given during Farmers' Week at the Ohio State University, January 27-31, 1919, the most popular talk was given by Miss Effie B. Arnold, Dayton R. F. D. No. 2. The subject of her talk was, "How I Made \$1,700 From My Farm Poultry Flock in 1918." Truly the dollar sign proves attractive even on a Farmers' Week program, and at least two hundred and twenty-five visitors came to hear this talk. Miss Arnold repeated her experiences for the benefit of those who could not get into the crowded room at the first session.

Miss Arnold is a member of the S. J. Arnold Company, which owns and operates the home farm near Dayton. This is rather a unique farm business, it being organized as a company with each one of the family an active member. Fruit and poultry are the major enterprises on this progressive farm, and last year from a flock of five hundred and two S. C. White Leghorn hens there was realized a labor income of \$1,743.69. Following is a statement and summary of the year's poultry business carried on under the general direction of the extension service of the Ohio State University.

FINANCIAL STATEMENT

Nov. 1, 1917, to Oct. 31, 1918.

Credit—

Inventory Oct. 31, 1918.....	\$1935.97
Market eggs sold	2584.02
Hatching eggs sold	146.82
Market poultry sold	328.48
Breeding stock sold.....	210.75
Stock and eggs used in house	150.11
Miscellaneous sales	5.75
Damage claims unsettled	29.40
Total credits	\$5391.30

Debit—

Inventory Nov. 1, 1917.....	\$1869.70
Feed purchased	1358.56
Feed from farm	46.20
Equipment purchased	16.17
Stock and eggs purchased	105.12
Miscellaneous purchases.....	136.64
Interest, five percent.....	100.22
Rent on land used	25.00
Total debits	\$3657.61

Labor income (\$3.47 per hen).... \$1743.69

Five hundred and two hens—average one hundred and forty-six eggs each.

Cost feed per dozen eggs—21.6c.

Average selling price of eggs—45.4c.

SUMMARY

Average number of hens for the year	502
Eggs laid	73,550
Egg production per hen.....	146
Market eggs sold—dozens.....	5,708.5
Lowest price per doz. (March 20, 1918)	32c
Highest price per doz. (Oct. 30, 1918)	85c
Average price per doz.	45.4c
Cost of feed per doz. eggs.....	21.6c
Labor income per hen	\$3.47

In the course of her talk Miss Arnold

stated that all chicks were purchased when one day old. These were not fed for the first forty-eight hours but were given sour milk to drink. After forty-eight hours they were given a light feeding of bread crumbs, boiled egg, cut dandelion and grit. At the end of three or four days they were fed chick scratch grain in a light litter of planer shavings and dry mash from troughs. Care was taken not to overfeed, to give plenty of exercise, sour milk, water and grit. All chicks were brooded under coal stove colony brooders.

Surplus cockerels were disposed of early in life as broilers and pullets were grown on free grass range. Early molting hens and surplus stock were sold thru local advertising as breeders. Pullets and hens were placed in winter quarters in comfortable, well lighted, dry and well-ventilated houses. Each flock of one hundred and fifty hens was housed in a pen sixteen feet by thirty feet, which was part of a long house. They were fed scratch grain in deep litter night and morning, and had dry mash in open hoppers before them at all times.

Particular attention was directed to keeping the houses and surroundings clean, sanitary and free from lice, mites, rats, etc. All eggs were shipped two and three times each week to New York City, where they were sold thru commission houses. Surplus cockerels

were fattened before being put on the market, it being the aim of the company to put out extra fine market products.

For the year previous, namely, November 1, 1916, to October 31, 1917, this same company made a labor income of \$927.16 from a flock of three hundred and ninety hens or \$2.37 per hen. In commenting on the two years' work Mr. S. J. Arnold has the following to offer as reasons for the better success of the year just closed.

"We received your letter and the yearly report yesterday and are exceedingly well pleased, yet it is not much different from what we expected. Some of the chief reasons for the better record for the last year are, first: the first year we had nearly one-fourth Minorcas and most of these were old, some quite old and did not lay much; second, the first year we bought much of our feed mixed at high prices, this year we mixed all our own feed; third, this year we sold off all our old birds for laying by advertising them at much better prices; fourth, shipping all our eggs to New York gave us much better prices; fifth, our experience for two years was a great factor in knowing what to do, and how to do it; and sixth, last but not least, the help, advice, assistance, and encouragement given us by the Ohio State University and our county agent."

WHEN THE VEGETABLE GROWERS MET

By L. M. MONTGOMERY

The sessions of the Ohio Vegetable Growers' Association covered a period of three days, Tuesday, Wednesday and Thursday of Farmers' Week. The attendance at all sessions was highly satisfactory and the interest in the various phases of the program was especially good.

One whole day was devoted to discussions of the potato with special reference to its culture and improvement. Mr. Dan Egbert, who has been saving seed of his own selection of the Sir Walter Raleigh variety for a number of years with splendid results, gave a growers' experience talk. Late plant-

ing in the northern part of the state he regarded as being the best practice thru a term of years, from June 15 to July 1 being regarded as the best period.

D. G. Babcock, formerly plant pathologist of the Experiment Station at Wooster, called attention to the potato wart disease—a disease characterized by a warty or cauliflower-like growth originating in the eyes of the potato. Eventually, it may completely envelop the entire tuber. Radical steps are being taken to prevent its spread; growers were advised to be on the lookout for it in Ohio fields and if suspicious tubers are found the same should be promptly reported to State authorities.

The means of improving the potato crop in this state was shown by lantern slides in an address by Mr. Gail T. Abbott of Medina. The better utilization of surplus stocks of potatoes in good years was cited as being one important condition for the improvement and enlargement of Ohio's potato industry. A higher degree of fertility as induced by the more liberal use of mineral fertilizers was emphasized by Mr. Abbott.

W. C. Edmundson of the Bureau of Plant Industry very satisfactorily substituted for Professor Stuart, who was unavoidably detained at Washington. Mr. Edmundson defined and emphasized the importance of good potato seed. Special attention was called to the wide variation in productiveness in different strains of the same variety of potato seed. Hill selection and tuber unit methods of planting seed plots were advised as a means of weeding out inferior and diseased seed stocks.

The importance of grading and standardization of vegetables as a means of improving vegetable market-

ing conditions was plainly indicated by C. W. Waid, potato specialist of Michigan. As a preliminary step in this direction, Mr. Waid called attention to the need for the standardization of varieties. Fewer varieties of any type of vegetable is conducive to the greatest improvement of vegetable marketing. The use of standard sizes was advised as a means of cheapening the cost of receptacles as well as a means of stimulating the market demand for vegetable products.

Louis F. Miller, of Toledo, as Association president, very ably led the round table discussion of marketing problems, which evoked a lively interest among the growers. Columbus growers need a permanent wholesale market, according to Mr. Theodore Olpp. At present conditions are unsatisfactory, tho improved thru the cooperative effort of the local growers' organization. The Cincinnati greenhouse men have recently organized a selling organization which has already wrought a decided improvement in marketing conditions in that city, Mr. Glines reported. Mr. Sammon of Cleveland gave a brief review of conditions at Cleveland and emphasized the importance of the market news service as a stabilizing agency.

He outlined the organization of a wholesale terminal district as the ultimate logical means of solving the marketing problem of our large cities. Mr. Miller briefly outlined the plan of operation of the Toledo Market Gardeners' Exchange. This stock company of about seventy-five growers rents a building and hires a sales manager who handles the entire output of the interested growers. The cost of marketing to the grower has ranged from three to ten percent at different seasons of the year. While they still have some problem to work out, Mr. Miller is highly

pleased with the working of their organization.

Thursday morning Dean R. L. Watts gave the meetings an added pitch of interest in his discussion of greenhouse problems. He emphasized the need for more attractive vegetable packages and packs as a means of stimulating vegetable consumption. The problem of economic and logical fertility maintenance in the greenhouse was emphasized. The use of home grown seed for greenhouse crops was pointed out as being the logical successful practice of many greenhouse men.

Dr. B. L. Hartwell, Director of the Rhode Island Experiment Station, very ably presented a topic of universal interest to all vegetable men—that of soil fertility with special reference to the manure problem. Experiments are in progress at the Rhode Island Station, having as their object the determination of the possibility of producing vegetable crops without manure thru the agency of cover and soiling crops, supplemented by adequate applications of chemical fertilizers.

Dr. Hartwell emphasized the fact

that the growing scarcity of manure and the necessity for an adequate solution of the problem of maintaining the soil's supply of organic matter as well as other elemental conditions of the high state of fertility required in vegetable production. Dr. Hartwell questioned the economy of composting manure and stated that too much of its value was lost thereby. The substitution of leguminous soiling crops for certain money crops in the gardener's rotations, as well as the inclusion of winter cover crops, constitute the basis of their investigations thus far, and these indicate that better crops of vegetables may be grown by means of soiling crops and chemical fertilizers than by the use of manure alone.

The Culture of Onions in Hardin county was well presented by George A. Chambers of McGuffy, and Mr. H. H. Richardson of Cleveland discussed the methods of growing celery in his section.

A fellowship supper Thursday evening and an inspection trip Friday morning to Mr. Fornof's greenhouses south of Columbus concluded this very interesting program.

COUNTRY LIFE CONFERENCE

By L. O. LANTIS, Secretary of Rural Life Association.

One of the subjects which received much attention in the conference was the betterment of the rural Sunday school and rural church. Judge A. M. Heidelbaugh, of Columbus Grove, urged country communities to get a better organization for their Sunday schools, better trained teachers and plan the work more carefully.

President Thompson discussed "The New Country Church." He pointed out the great need for a union of churches in many country communities. Either there will be this union or all the

churches in some over-churched communities will have to give up their work.

Rev. J. B. Hawk had as his subject, "The Rural Church and Moral Welfare." He gave the following reasons for the decline in rural churches: very poor church buildings, low salaries paid to ministers, the lack of money with which to provide adequate financial support for the church, too many churches, and ministers with inadequate preparation.

"The Federation of Rural Churches" was presented by Rev. J. M. Keck, pas-

tor of a federated church at Northfield, Ohio, for more than four years. The speaker said it was important to proceed very carefully with church federation. Start the federation at an opportune time, let each church have a part in the plans, and try to avoid friction.

Professor Hibbard of the University of Wisconsin gave a splendid address on "The Farmers' Marketing Problem." He spoke at length concerning the importance of the middleman and urged that changes in marketing would have to be made gradually. He also urged the importance of some system of keeping farm accounts, so that each farmer might know what he was doing on his farm.

"Vocational Training in Rural Schools" was the subject discussed by Dean Vivian. The speaker said it was necessary to have teachers in the rural schools who are acquainted with country life. He also advocated the use of textbooks prepared to meet the needs of rural school pupils.

Professor W. F. Stewart emphasized the ideal of serving the community as the proper one for a country teacher. Miss Katherine Koehne, teacher of

home economics in the Pataskala High School emphasized the importance of training girls to be homemakers. R. H. Schreiber, teacher of agriculture in the Worthington High School, described the home project work undertaken by the boys taking the course in agriculture.

Dr. Henry H. Goddard, Director of Ohio Bureau of Juvenile Research, emphasized the fact that every community had people in it who had a very low degree of intelligence. It is very important that such persons should be known and proper training then should be given them. Otherwise they constitute a real menace to the community.

"The Need for Recreation in a Rural Community" was the subject of an address given by E. C. Lindeman, Y. M. C. A. College, Chicago. He urged rural people to plan a program of play and recreation. Not much apparatus is necessary, but ample ground for playing games and some one to lead are very important.

Frank E. Dill spoke about "A Well Equipped Farm Home." He described the heating and lighting system he had in his home and also told about the water system he has.

SOIL TALKS

By A. C. WORKMAN, Instructor in Soils, Ohio State University

The Farmers' Week at Ohio State University this year proved to be a decided success. The large attendance and the enthusiasm shown by those present were very encouraging. The program offered by the Department of Agricultural Chemistry and Soils was among the best ever given during Farmers' Week. The chief theme of the program was the growing of clovers for soil improvement. Various phases of the problem were discussed. Every address was a good one, and great

credit is due those who had this part of the week's work in charge.

The address on "The Relation Between Clover and Profits in Farming," by Dr. W. I. Chamberlain, who has been for many years a well known Ohio champion of the cause of scientific agriculture, was practical and to the point. The ripe experience of Dr. Chamberlain gave his words weight. He gave an answer to three questions—What will clover do? How get it? and How use it? He discussed briefly the

history of the nitrogen problem and how clover, in common with other legumes, can secure atmospheric nitrogen thru the agency of bacteria in the nodules on the roots and thus supply the necessary nitrogen for the plant growth and soil improvement without cost. Its roots provide good soil aeration, bring back nitrogen from subsoil, and supply much humus.

In getting a clover crop started Dr. Chamberlain placed emphasis on tile drainage, which, by taking away excess moisture, prevents lifting of the clover during freezing weather. The use of lime was advocated. To prevent lodging of the clover Dr. Chamberlain thought it well to mix timothy with it, using about four quarts of each kind of seed to the acre.

As to how clover might be profitably used, among other things, stress was placed on hogging it down, thus furnishing protein in a comparatively cheap way. Corn alone for hogs is an unbalanced ration, but corn and clover pasture makes for good growth and consequently the production of pork at a good profit. The first or second crop of the clover may be used for this purpose. What the hogs leave on the ground will, when plowed under, greatly enrich the soil.

Myron A. Bachtell of the Department of Agricultural Chemistry and Soils discussed very ably the "High Cost of Clover Failures." He stated that for the five year period between 1912-17 only seven percent of the cropped area of the northeast section of Ohio was in clover; in the northwest section ten percent in clover and alfalfa combined; in the southwest section ten percent of clover and alfalfa; while in the southeast section the acreage only reached five percent, thus showing that Ohio is not growing a sufficient acreage

of legumes. Professor Bachtell showed that the state is paying, in at least four ways, a high cost for this failure to grow this important line of crops. First, by the difference in feed value between the timothy grown and the clover that should be grown. Timothy cannot take the place of clover in livestock production. Second, by the effect on soil fertility. It adds nitrogen to the soil and its roots loosen the subsoil better than deep tillage or dynamiting can do it. Third, by its effect on the standard of living. The highest standard of living is commanded by those who can produce the most, and most can be produced when clover forms a part of the crop rotation. Fourth, by the effect on the morale of the farm family. It is of vital importance that every farmer gain the optimism that comes thru the scientific growing of legumes. In short, the speaker proved that altho it costs money to grow clover, it costs much more not to grow it.

W. G. Stover of the Department of Botany gave a very good lecture on "Clover Diseases." He showed how plants are injured by various kinds of parasites by being robbed of food and having parts killed. Among the common leaf diseases he mentioned leaf spots and mildews. Of the leaf spot diseases, pseudopeziza leaf spot of clover and alfalfa, the yellow leaf blotch of alfalfa, clover rust and the black spot of clover are important. The mildews have not yet been found in Ohio, but have been doing great damage in western states and Canada.

Of the stem diseases, stem rot found on clover and alfalfa; anthracnose, a very serious disease of clover, and the scab which attacks wheat, clover and corn roots were discussed. These diseases are doing much damage in Ohio.

Of the root diseases Professor Stover told of the violet root rot, a disease not yet found in Ohio.

To control these diseases the speaker advocated: (1). Cutting the crop a little early. (2) Giving plants a favorable condition for growth. (3) Crop rotation. (4) Raising immune plants such as alsike and sweet clover. (5) Developing resistant varieties. (6) Eradication of stray plants in fence corners. (7) Burning of diseased plants.

J. F. Lyman of the Department of Agricultural Chemistry and Soils showed in an excellent illustrated lecture the great value of legumes for feed. He said that all good rations must contain sufficient protein of good quality, total digestible nutrients in proper amount, enough roughage to satisfy the animal but not an excess, palatable and appetizing feed, mineral matter of proper kind and amount, and two substances called vitamins in proper amount. The illustrations and data presented by Dr. Lyman from various experimental stations showed very clearly the important place filled by legumes in a satisfactory balanced ration for dairy cows, beef cattle, hogs, sheep and other animals. It was shown that legumes supply large amounts of protein in comparatively small bulk and at small cost; that they can readily be made to take the place, to a large degree, of expensive protein concentrates; that they are rich in lime; that they furnish the fat soluble vitamins deficient in all concentrates and, besides, being palatable and appetizing, they are eaten well by animals, which become healthy and bring good profits.

J. F. Coffey, of the Department of Animal Husbandry, spoke on "The Value of Clover in Hog Raising." He made it very clear that in the produc-

tion of pork at a profit, clover is an important factor. He showed by its analysis that it contains in goodly amounts protein, lime and other desirable feed constituents. He advocated its use for breeding animals, young pigs and fattening hogs. Data presented from the Illinois Station showed that it can be utilized at a good profit in producing pork. The speaker also advocated the use of dry forage for winter feeding of hogs, maintaining that it keeps them in excellent physical condition and supplies a lot of nutrition.

C. E. Thorne of the Ohio Experiment Station addressed a large audience in the University Chapel on "The Systematic Improvement of Soils With Acid Phosphate and Clover." He based his lecture on three important assumptions, namely, that on no Ohio farm can we afford not to grow clover, that on no Ohio farm can we depend on clover alone for maintenance of fertility, but each must supplement the other.

Director Thorne also advised the careful saving and application of manure. Since two tons of it furnish as much nitrogen and potash as a 1-8-1 fertilizer, he said that manure supplemented with phosphorus will approach what Ohio soils need.

Burt L. Hartwell, Director of the Rhode Island Experiment Station, delivered on Thursday two interesting addresses. His discussion of "The Effect of Crops on Those Which Follow as Influenced by Soil Treatments" raised many questions. It would seem that the investigations which he described as having been carried out at Rhode Island Station make very uncertain the way which our soils are benefited by acid phosphate treatment. It may be possible that its good results are to be

partly attributed to its ability to precipitate aluminum or magnesium or some other objectionable soil ingredient. It may, as Dr. Hartwell said, do many things besides furnish available phosphorus for plant food.

In Dr. Hartwell's second address on "Acid Soils and Their Effect on Alfalfa and Other Crops" he showed that since lime has many functions, whether we use it or not depends on the soil, the crop to be grown and what we lime for.

He stated that the deleterious principle—in one instance acidity—may not be the same as that in another. The question of liming, according to this, is one that must be settled by the individual farmer after he has made a study of the conditions under which he works.

The address by Guy W. Conrey of the Department of Agricultural Chemistry and Soils, on "The Composition of the Limestones of Ohio," was very instructive.

By means of different charts he showed the location of various kinds of limestone in the state and designated their composition and comparative value as soil amendments. He showed that the greatest limestone area of the state is in the western part and that it is to this region that we must look for our greatest supply. The major portion of this limestone is dolomitic. The eastern part of the

state was also shown to contain some limestone but a strip thru the center of the state from north to south contains none.

The speaker also compared the limestone industry of Ohio and Pennsylvania, showing that altho Pennsylvania produces twice as much limestone as Ohio, it is operating ten times as many plants.

The last address of the week by Joseph F. Barker of the Department of Agricultural Chemistry and Soils on the subject "Sweet Clover's Place in Ohio Agriculture" was an excellent appeal to the farmers to grow this important legume. Professor Barker did not advise those who are now growing some legume successfully to change to sweet clover, but rather that it be raised by those that are not now growing legumes successfully.

The points mentioned in favor of sweet clover were that it is an excellent subsoiler, that it is a great nitrogen gatherer, that it is adapted to all sorts of soils, that it is a hardy plant, that it prepares the way for alfalfa, that it offers an opportunity to improve the pasture land of the state and that its feeding value compares very favorably with alfalfa. After hearing Professor Barker's arguments in favor of sweet clover many farmers would surely be added to the list of those who are now its friends.

THE TRACTOR SHOW AND TEST

By J. A. HOWENSTEIN, '19

ONE of the most instructing and interesting features of the 1919 Farmers' Week was the tractor show and tests. This exhibit was held in the new aviation barracks, a part of which has just been turned over to the De-

partment of Agricultural Engineering. Practically all the prominent tractor manufacturers were represented, and quite a few exhibited small threshing outfits for use with their tractors. Several of the prominent plow and im-

plement companies were also represented.

While the exhibit of the tractors and machinery attracted considerable interest, the tests to which all the tractors were subjected attracted the most attention. At some time in the week, according to a pre-arranged schedule, each machine was given a one-hour fuel test at its rated horsepower or as near it as it could develop, and a one-half hour test under its maximum horse-

load for thirty minutes the machine was given credit for the overload.

The fuel for the tests was furnished by the Standard Oil Company and consequently was uniform for all tractors entering the test. Lubricating oil was furnished by the Vacuum Oil Company, all tractors using the type of oil particularly adapted to their motor.

The accompanying table shows the results of the tests. The first two columns show the rated horsepower and



Prony brake in action

power. If the tractor was unable to pull over its rated horsepower the latter test was omitted.

In the actual test, the tractors were given thirty minutes to warm up and become adjusted to their rated load. The next hour was spent in the fuel test, readings on the fuel consumption and speed being taken every ten minutes. After this test the motors were adjusted to their maximum horsepower and if they were able to maintain this

speed given to the motors by the manufacturers. The next two columns show the maximum horsepower and the speed at which it was obtained, and the next two columns show the horsepower and speed of the motor during the fuel test. The last column indicates the cost of fuel for a horsepower for an hour for the different machines. This column in a way represents the relative efficiency of the motor and means of transmission to the belt pulley.

RESULTS OF TRACTOR TESTS

Order.	Tractor	Rated		Maximum Load		Fuel Test Load		Cost per H. P. Hr.
		H. P.	Speed.	Speed.	H. P.	Speed.	H. P.	
1	Avery*	8-16						
2	Moline	9-18	1650	1772	28.7	1670	20.8	3.73c
3	Fordson	-22	1000	1125	21.4	1125	21.4	1.77c
4	Cleveland	12-20	1400	1340	19.2	1340	19.2	3.92c
5	Emerson	12-20	900	883	24.7	882	20.5	2.19c
6	Case	15-27	900	862	27.7	862	27.7	1.666c
7	Case	10-18	1050	1125	19.8	1125	19.8	1.734c
8	Elgin	12-25	950	940	19.2	940	19.2	1.598c
9	Wallis	15-25	850	913	31.8	859	25.3	2.86c
10	Avery	12-25	450	488	18.3	488	18.3	1.784c
11	Titan	10-20	500	509	24.1	520	20.6	1.504c
12	Bates	12-20	900	929	21.4	929	20.5	1.832c
13	Rumely	12-20	560	560	25.5	557	20.0	1.543c
14	Hart-Parr	-30	750	783	37.5	822	30.8	1.504c
15	Russel	20-40	825	840	31.6	840	31.6	2.54c
16	Wat'loo Boy	12-25	750	733	21.2	733	21.2	1.581c
17	Au'man Tr	15-30	900	909	33.4	911	30.3	2.212c
18	Frick	12-25	900	998	24.5	998	24.5	1.633c
19	Port Huron	12-25	900	889	14.4	889	14.4	3.438c
20	Huber	12-25	1000	1036	28.3	1077	26.9	1.952c
21	Shelby	9-18	1100	1130	18.6	1130	18.6	4.936c
22	I. H. C.	15-30	575	585	35.0	598	31.1	2.160c

*Withdrawn.

A few conclusions can be drawn from the test concerning the economy of the two- and four-cylinder engines. Twelve of the four-cylinder kerosene-burning engines operated at a cost of 2.085c per horsepower hour, while the five two-cylinder machines operated at a cost of 1.583c per horsepower hour.

The average cost of operation of all the kerosene motors was 1.933c per horsepower hour, while the average cost of the gasoline motors per horsepower was 3.864c, practically twice as much. From a standpoint of economy of fuel kerosene seems to be the most economical.

CORN AND GRAIN SHOW

The eleventh annual corn and grain show held in the aviation barracks at Ohio State University during Farmers' Week was, without doubt, the largest, most instructive, and most interesting show of its kind ever held at the institution. An industrial exhibit, including limestone and farm implement displays, held in connection with the grain show, was a new feature which added much interest to the show.

Professor W. H. Darst of the Agronomy department at Pennsylvania State College, judged the corn and grain. J. W. Bland, Bloomingburg, was grand corn champion, having the best ten ears of dent corn in the show. Joseph Keckley, Marysville, was grand wheat champion, having the best peck of Red Winter wheat. The best bundle of clover was exhibited by D. C. Lawrence of Coshocton.

J. B. Appel, Lucasville, won first premium in the ten-acre utility contest.

The sweepstakes for each of the four sections of the state were won as follows:

Northwest—M. L. Combs, Alger.

Northeast—F. W. Ruggles, Norwalk.

West Central—J. W. Bland, Bloomingburg.

Southeast—J. H. Roads, Bainbridge.

Frank Copper, assistant county agent of Franklin county, was manager of the show.

BOYS' STOCK JUDGING CONTESTS

BEEF CATTLE

First—Walter Scheidt, Van Wert county.

Second—Harold Rainsberger, Tuscarawas county.

Third — Floyd Chacey, Summit county.

DRAFT HORSES

First — Chauncey Booth, Lake county.

Second—John Otterbacher, Medina county.

Third—Arthur Richie, Muskingum county.

DAIRY CATTLE

First—Robert Flickinger, Butler county.

Second—Roy Aicholtz, Hamilton Co.

Third—Doyle Horn, Auglaize Co.

LARD HOGS

First — Roy Garveric, Morrow county.

Second—Edward Armitage, Cuyahoga county.

Third—R. B. Hart, Morrow county.

BOYS' CORN CLUB CONTEST

First—John Pugh, Venedocia.

Second—Thomas Whitlock, Wilgus.

Third—George Lucas, Hillsboro.

STATE FEDERATION OF FARM BUREAUS

A state-wide organization of farm bureaus was organized at the Ohio State University last week, during the Farmers' Week program. The new association is to be known as the Ohio Farm Bureau Federation. Its purpose, according to the constitution, will be "to represent, advance, and protect farm and home interests of Ohio by centralizing into a single organization the strength and influence of the several county farm bureaus in the state; by securing legislative recognition in state and nation; by promoting an understanding of the responsibility of the farmer to society and society to the farmer; and by cooperating with all agencies of the state and nation, whose object is the promotion of the welfare of the American people."

The following executive committee of nine members was elected by the county farm bureau officers in attendance: O. E. Bradfute, Xenia; L. J. Taber, Barnesville; Harry Beale, Mt. Sterling; DePew Head, Marion; George Cooley, Dover Center; Frank Balyeat, Van Wert; H. P. Miller, Sunbury; H. E. Shaver, Cheshire; H. C. Rogers, Mechanicsburg.

These men elected the following officers: President, O. E. Bradfute; vice president, H. P. Miller; secretary-treasurer, H. C. Rogers.

A HOTBED

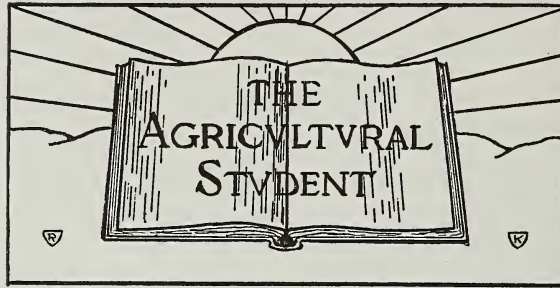
Early vegetables constitute one of the keenest delights to the amateur gardener and a primary resource for the commercial grower, and the gardener who fails to provide for a supply of fresh vegetables early in the season is missing much of the benefit and pleasure of garden work.

This extreme earliness may be secured most effectively and economically by the use of such protective devices as the hotbed, which may be utilized in not only producing early plants of numerous kinds for transplanting to the open field as soon as soil and weather conditions are favorable, but may be employed in the production of a great variety of quickly maturing crops for immediate consumption.

The culture of vegetables or vegetable plants in hotbeds increases the fascination of vegetable work. It is a very intensive form of gardening, in which the culture environment is subject to more or less complete control by the operator, and on that account products of most excellent quality may be produced in a minimum period of time.

For the amateur gardener, who is a property owner, use of hotbeds of a permanent character are frequently desirable, as they may be utilized thruout the growing season and have the advantage of being available with the minimum of heating material and labor in preparation.

This type of bed will necessitate the digging of a pit of the desired size about twenty-four to thirty inches deep. The superstructure or frame may be either wood, brick or concrete, the latter being more desirable and costly. Such a structure should be placed where full benefit of the sun is possible.



OHIO STATE UNIVERSITY

A Medium for Exchange of Ideas Between College and Farm

Published by the Students and Faculty in the College of Agriculture. Established 1894.
 Subscription Price, One Dollar the Year. Entered at the Postoffice at Columbus, Ohio, as
 Second Class Matter. Member of the Agricultural College Magazines, Associated.

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 C. DEAN, Assistant Editor; ETHEL M. CADLEY, Assistant.

AGAIN WE ARE CHANGING

For several months THE AGRICULTURAL STUDENT has been, principally, in the hands of the faculty; next month the paper will again be edited by G. F. Johnson, and the business managership will again be in the charge of C. H. Sprague.

There are many students who have not realized the great possibilities for useful occupation by associating themselves with this publication. If you want to get a little experience along the lines of endeavor of our paper, communicate with the staff immediately.

So absorbing has been the work, that it is with genuine regret that the present staff severs its connection with the publication. It is a student publica-

tion and it must be their privilege to again resume control.

FARMERS' WEEK, 1919

Surpassing highest expectations, the registration for the seventh annual Farmers' Week totaled 4833, an increase of 19.4 percent over that of 1917, the former record year. Last year the number present was 2607, the low attendance being due to war conditions. Registrants were from every county in Ohio, from twenty other states, from the District of Columbia and from Canada. The average age was 38.1 years, and 81 percent of the men lived on farms. F. G. Prouty of Worthington, aged 88, one of the pioneer implement dealers of this city,

was the oldest person registered, while the youngest was Gladys Kemp, ten months old, daughter of I. N. Kemp, of Alberta, Canada.

During the week one hundred and twenty-five speakers gave one hundred and fifty lectures and demonstrations, and twenty agricultural associations met. Chaperoned by the boys' and girls' club workers, the two hundred and fifty prize-winning boys and girls visited educational institutions, were present at a session of the legislature and were received by Governor James M. Cox.

INCREASES EACH YEAR

With the exception of last year, a steady increase in Farmers' Week attendance is shown each year. In 1913 the registration was 140; in 1914, 770; in 1915, 1457; in 1916, 2892, and in 1917, 4046.

CUT, DRIED, FED BUT NOT DIGESTED

It has been our opportunity to meet during the last few weeks a great opponent of colleges—a man who is inclined to believe that the college casts all men in the same mould, destroying individual opinion, and causing intellectual stagnation. "Too much," he said, "is cut, dried and fed and not digested." His criticism is true in many cases, and whether it applies to you, or not, depends upon your application of the work at hand. Even the agricultural student who has taken a lively interest in his community before coming to college, has much to learn. To him the college points out that he knows but little. He must interpret the varied opinions of his instructors and the books he reads. On the other hand, if the college student pursues an agricultural course without the funda-

mental enthusiasm for the progress of the country side; without a definite aim, and with the thought that because he was raised upon a farm he has little to learn, he will tolerate his work and will neglect the personal interpretation for himself.

A broader culture is a great need for the agricultural student who must necessarily study the subjects of practical importance. In order to better enjoy his life outside the working hours, the appreciation must, however, be broadened. Too few students make an effort to cultivate an acquaintance with the best music, art, literature and nature. "I know what I enjoy," says the average student; flies enjoy decaying matter, but this is not good taste. If it is an effort to appreciate those things which you are wont to call "highbrow," make that effort and be repaid a thousandfold.

The college man has one ideal, and that is truth. Science is the attempt at truth. In the light of science, the student must examine beneath the veil of superstitions and ignorance. Education gives a clearer view into the natural laws of ethics, politics and the every-day social relationships of life. Prejudices totter with broader sympathies. Our education gives us greater confidence in ourselves and respect for the conditions of our fellowmen.

The college trains the reason, and if the student is not too lazy to think, truth emerges and a happier organized life results. Systematic thought produces leadership with a vision of a better future agriculture which will demand recognition in the world. With an intelligent agricultural population, the fair treatment of the dairyman, fruit grower, meat producer, and agronomist will result, so that there is

greater profit to the producer, and a lower cost to the public.

A man who fails to avail himself of every opportunity to acquire the most there is to be known about his life work, is not serious in trying to succeed. The agricultural colleges are the store-houses holding the experiences of the past mixed with the fruits of today's science; the value to you depends upon you, yourself.

THE CROSSROADS

MEETIN' HOUSE

The interest aroused by the two performances of the annual Farmers' Week play may be judged when it is known that many persons were turned away at each performance. The Cross Roads Meetin' House was a good play and the parts were capably handled by the cast. Much credit is due the coach, Miss Gertrude L. Robinson. Especial mention should be given to Miss Elizabeth Horn, who took the part of Nellie Randall, a country girl, the life of her community. In character parts Margaret Harrington and Bess Willis were amusing. C. C. Clark held the honors for the men in the part of "Zeke," a good-for-nothing farmer. Character studies of interest were portrayed by Geo. Krietler, V. C. Decker, H. W. Yount, S. Price, and C. H. Cook. Chas. Roberts carried the leading male role—that of a minister with an agricultural college education who works a great change for progress in his community. This play would be excellent for presenting at the various granges thruout the state.

The leagues of families are the creations which by extension form the League of Nations.

—*Dearborn Independent.*

THE INCESSANCY OF NATURE

(J. Arthur Thomson in the "Bible of Nature" writes of "universal flux" in nature. To impress upon you the beautiful sequence of nature we are transcribing his thoughts in separate stanzas.)

"The rain falls;
The springs are fed;
The streams are filled
And flow to the sea;
The mist rises from the deep
And the clouds are formed,
Which break again
on the mountain side.

The plant captures air, water and salts,
And with the sun's aid
Builds them up by vital alchemy,
Incorporating these into itself.

The animal eats the plant
And a new incarnation begins

All flesh is grass.
The animal becomes part of another animal,
And the reincarnation continues.

The living thing dies and returns to the earth,
The bundle of life all broken,
The microbes of decay break down the dead,
And there is return to air, water and salts.

Nothing is lost,
But nothing is permanent.

All things flow.

The man who removes the buds from a century plant only works every hundred years.

There are really ten commandments but Wilson wants four more.

Campus Notes

Mr. Henry W. Schuer, instructor in the Farm Crops Department has resigned his position at the University, effective March 1st. He has purchased a farm in Champaign County and will take up his residence there at an early date.

Mr. W. H. Palmer, state leader of Boys' and Girls' Clubs, announces the appointment of the following county leaders: R. S. Noble, Cuyahoga County; Olen Shong, Auglaize County; Pearce McMullen, Highland County; O. C. Troy, '13, Muskingum County. These county leaders have been appointed on a twelve months basis, and it is the purpose of the state leader to appoint temporary leaders for other counties only in such cases as would indicate the appointment of a permanent leader at a later date.

Mr. F. L. Allen of the Extension Department has been busy scheduling Farmers' Institutes for March which were postponed on account of the influenza epidemic. Sixty out of one hundred and fifty of these postponed institutes have requested one in March.

Mr. Roger Long, District Superintendent of county agents in northeastern Ohio, resigned his position February 1 to enter business.

Mr. H. D. Munroe, Superintendent of Egg Laying Contests at the Connecticut Agricultural College, Storrs, Conn., has been appointed instructor in Poultry Husbandry in Extension service, and will assume his new duties

February 10. Mr. Munroe will devote the major portion of his time to boys' and girls' poultry clubs.

During Farmers' Week the two hundred and fifty boys and girls representing the county and state winners in Boys' and Girls' Clubs were quartered at the Star and Southern Hotels. Breakfast was obtained at restaurants conveniently located, dinner and supper being served by the ladies of King Ave. Methodist Church at the Tabernacle, corner of Neil and Tenth Avenues.

The Agricultural Engineering Department has moved its offices to the Aviation Laboratory, which is located directly west of the Mechanical Engineering laboratory. The rooms thus vacated in the Home Economics building will be utilized by Miss Edna White as a model dining room for the classes in institutional management.

Mr. D. D. Hughes, Farm Management demonstration specialist, has returned to the University and resumed his duties, after an absence of eight months in army service. Mr. Hughes held the commission of second lieutenant, and was stationed at Camp Custer, Neb., later being transferred to Camp Hancock, Ga., and finally to Camp Travis, Texas, where he received his discharge from service.

An observing man will see more things in crossing a field than will a fool in going around the world—*Armour's Almanack*.

Home Economics Department

READING IN THE FARM HOME

RUTH E. CHRISTEN, 19

"Why read at all?" asked William L. Graves of the Department of English, Ohio State University, in a lecture given during Farmers' Week. The answer to this question is that we read for cultural purposes, and to develop the intellect. Knowing how to read gives rise to a better state of morals, and finally, gives us something to look forward to in the future.

There is a special need of it in the farm house, because too little of it is done there. Since the beginning of the progressive movement that is taking place on the farm, the need has become greater to increase our knowledge of the improvements constantly being made available, and to keep up with them.

To have plenty of books and magazines in a home not only gives us the desired education, but also helps to educate our children. Such reading encourages them and gives them ambition to do things which will be of value to themselves and the whole community.

"Of what should farm reading consist?" is a question often asked. In every home should be found some church magazine, a paper for the children, a daily newspaper and other educational magazines, of which there are a great number.

Children should not be allowed to cultivate a hasty and superficial method in reading, which periodicals have a tendency to give. It is best to get them books which they can read with understanding, and which they feel belong to them. In this way if they wish to make citations they may do so.

Many people will buy a set of books, and when they put them in their libraries will never look at them again, except perhaps one or two copies. But if you wish to have a library which you can appreciate, accumulate the books gradually, and be cautious about buying sets of books.

In communities there are various ways by which the reading habit can be cultivated. Organize a reading circle and have each member buy one or two good books. These may be exchanged during the winter months when more time is available. In this way a person may read ten or more books without needing to buy each one.

The use of the school libraries in the community is another excellent way to encourage the reading of good books. It is also an advantage to make use of the State Circulating Library. Any community can use these books; the only requirement is to have some person responsible for the books, so that they will be returned to the library at the time specified, and if any books are lost he will make good for them.

Giving books as presents will do a person more good than some frivolous gift which is often given and which will only be in the way. Good books given to children will help to build up the library, and create in them unconsciously a taste for good literature.

Anyone having any doubt or not knowing what is considered a good book or periodical may find out thru the University. The Department of English will gladly send any desired information concerning them. The greatest difficulty for most people liv-

ing on a farm is getting time to read. The only possible solution of this problem is to make a study of the work and rearrange it so that there will be a few hours a day for reading and other forms of recreation. Efficient management on the farm and in the farm home is the key to the situation.

SIMPLE LIVING MUST CONTINUE

The armistice is signed, but almost the whole of Europe is famine stricken. There is insufficient food to go around and millions must inevitably die of starvation before another harvest. No real peace can be assured until the food problem of Europe is well on its way to a solution.

Conservation is vital to the relief of stricken Europe. Our harvest season has come and gone, and whatever food is exported must come from our surplus and from our savings, very largely the latter. Certain foods such as meats, fats and dairy products, it is true, are produced thruout the year, but even these depend largely on feeds and fodder, supplies of which are limited and cannot be replenished until another harvest.

An effort will be made to warn of the serious results abroad if we fail to heed the requests for continued conservation. Food, we are reminded, is the only effective weapon with which to combat famine still threatening hungry millions. And never has there been so great an opportunity for women and children as well as men to show their true spirit of democracy in sending relief by daily acts of food saving.

It is necessary to impress upon every one that stopping hostilities or even the ultimate signing of peace terms produces no extra food, and that human lives will continue to be sacrificed unless

food is saved in this country and properly distributed among those who have pitifully little or none.

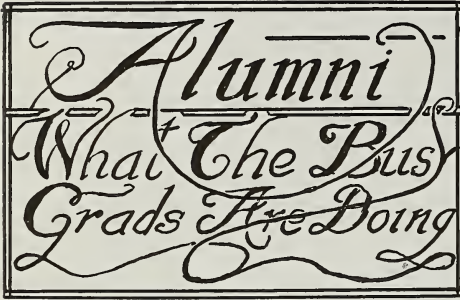
We know now how much food there is, where it is needed and just how much can be shipped. The program agreed to calls for 67 percent more meat and fat, 52 percent more breadstuff, and 21 percent more sugar than was shipped last year.

The original pledge made by the Food Administration in behalf of the people of the United States was $17\frac{1}{2}$ million tons of food to be shipped overseas by July 1, 1919. This amount of food is 50 percent greater than last year. With Belgium and France liberated and millions in south central Europe clamoring for food, the United States is now undertaking to increase its exports from $17\frac{1}{2}$ to 20 million tons. The Mediterranean Sea routes are now sufficiently safe for bringing wheat from India and Australia, hence our exports will consist largely of fats, meats and feed. Feed is essential for milk production, of which the stricken nations are in critical need.

At present we have sufficient supplies of wheat in the world to return to the white loaf, a sufficient supply of sugar, if other nations stick to their short rations—a shortage if they increase their rations. There is on hand as much beef as can be loaded on ships, but a world shortage of three billion pounds of fats—that is, pork products, dairy products and vegetable oils. The clearing of the sea and opening up of markets long closed to the world will alter the setting of the home table from time to time. Everything depends on available ships, railway transportation and storage capacity. We must plan to meet each situation as it arises.

This means that conservation poli-

(Continued to page 371)



D. Glen Swanger, '16, is county agent of Tuscarawas County.

Gilbert Gusler, '12, is Assistant Professor of Animal Husbandry at the University of Illinois.

Virgil Place '12, is county agent in Indiana, with headquarters at Crown Point.

Charles E. Snyder, '09, is now associate editor of the National Stockman and Farmer.

Grover C. Long, '09, is breeding Percherons in Monroe County, Ohio.

Harry E. Allen, '09, is in charge of the sheep work at Purdue University. During the past summer he was temporarily employed by the federal government for sheep work.

Sleeter Bull, '10, is teaching animal nutrition at the University of Illinois. He is the author of a text book on Principles of Feeding Farm Animals.

Mr. and Mrs. E. J. Riggs, announce the birth of a baby daughter January 13th.

J. P. Schmidt, '16, is county agent of Morrow County. He took up this work January 1, having received his discharge from the army in December. He received his commission at Camp Lee, Virginia, and was married recently to Lorene Z. Peshak, a noted violinist.

John M. Rarey, '17, and Mabel L. Postle, ex-'19, were married January 28. They will reside on Mr. Rarey's farm near Kenton.

Ralph W. Jordon, '14, and Helen Mougey, '16, were married January 25. They will live in Cleveland, as Mr. Jordon is county agent of Cuyahoga County.

Carl J. Drake, '14, is Professor of Forestry in the New York State College of Forestry.

M. F. Miller, '00, is Professor of Soils at the University of Missouri. Professor Miller was connected with the Department of Agronomy at Ohio State from 1902 to 1904 and during this time he served as faculty editor of THE AGRICULTURAL STUDENT.

Lewis L. Heller, '12, has been recently appointed assistant secretary of the National Wool Growers' Association, with headquarters in Chicago. Mr. Heller will have charge of the Eat-More-Lamb educational campaign which will be national in scope. Mr. Heller has just received an honorable discharge from the army, where he held a lieutenant's commission.

Walter D. Hunnicut, '17, is operating a large farm in Clinton County, and specializing in Poland China swine, Poole wheat and Leaming corn.

Fred Perry, '15, is running two hundred and forty acres in Putnam County near Leipsic. Hogs is his specialty.

Archie Bishop, '15, is farming the home place in Delaware County, and teaching the eight-weeks' course in Animal Husbandry.

Robert Hammond, '16, is on the home farm in Belmont County.

Jesse Whonsettler, '16, is farming at Creston, Ohio.

R. T. Shannon, ex-'16, has located in government work in Louisiana.

Henry W. Vaughn, '08, is Professor of Animal Husbandry at Iowa State College, Ames, Iowa.

(Continued on page 370)



My Room, September 9, 1918.

My Dear Professor Bear:

Tonight as I left the laboratory for my room, it was raining in a meek, dismal fashion, and huddled in my coat I felt that our beautiful summer is now but a memory. It is wooded where I live, and tramping is wet, dead leaves underfoot, the narrow crooked streets of this quaint, picturesque old town with their restful old street lamps brought it vividly to my memory that I am living in the old world—among old traditions, settled opinions and much that we, of the west, think odd and, perhaps, useless.

Stopping at the Y. M. C. A. on the way home, I hoped to get some chocolate, but came away with some tiny, sweet cakes as the best proxy. A little further on I got some grapes at a little shop, and, after inviting the lady of the house in to taste these, we sat talking French for perhaps half an hour, quite romantically perhaps, by the light of some candles I procured for the candlesticks on the mantel shelf—with old Frenchmen looking down from the walls, and the flickering soft light bringing out the beautiful lines of an old Louis XIV walnut cupboard for clothes that stands in the room.

This—after sixteen months' (yesterday), isolation from friends and interests, and a country that looms up dearer as one separates oneself from it.

As I think of it, our correspondence is rather onesided, for, while you tell me the interesting things at home that keep alive the bright spark of my longing for the University atmosphere, yet I do not find it possible to write of things that I know interest you; I would like to be able to say what the French farmer does—what farm practices he uses to keep his land highly productive; how he uses legumes; what is the character of the soil and how the chemical and physical properties and geologic origin influence the type of crops used, and to what extent has long usage determined the special crops that shall be grown on certain soils to maximum advantage; does he use modern machinery? How many hectares in the average

farm? What about cooperative societies and rural social life? What about soil acidity? What about land values? These and many other questions I should like to discuss with you, but I find no means of accomplishing these for the reasons given: (1), My French at present is good, but I cannot use it in general conversations such as these investigations would warrant, for it is a special vocabulary that one acquires first—one which centers about means of getting about, and of having wants supplied; (2), The French are a highly social people, and to acquire a circle of acquaintances that should include those who know accurately about these subjects would entail an enormous social intercourse which is impossible.

My work carries with it a great amount of routine. Last month I issued over 1000 cc. of diagnostic sera, and the work of producing that is better appreciated when I tell you that a large part of it is put out in a small glass ampoule we make ourselves, fill with 0.1 cc. of serum, seal, typewrite a label for, paste the label on the ampoule—all this for 0.1 cc. of serum. Some of the sera are put out in larger quantities—say 2.0 cc. and 2.5 cc. ampoules. All this entails much cultural work on the strains used for immunization, preparation of antigens, injection of animals, titrations of sera, bleeding of animals, and thousands of minor details. True I have numerous assistants who, under the military regime, must do just as I direct, yet the most that can be said for these youths is that they are anxious to learn. They have no inkling of education beyond the secondary schools, and with this raw material I not only find little external stimulation, but find that I must painfully trace their every step to insure satisfaction in the end. As you may imagine, this takes all my energy and time, and, keeping up the pace that I needs must from 9 a. m. till 6 to 10 p. m., leaves me in a fit mood only for a quiet evening in my room, to read or write, or, as last evening go to the opera where we enjoyed "La Traviata"—"provincial opera" notwithstanding.

One thing cheers me up—as an officer I find I shall be able to save at least \$100 a month (my salary is \$225)—and lasting as this war must at least another year this shall be sufficient to enable me to continue my much needed training in the fundamentals that the university still has for me, without spending additional time in practical work such as at the Ohio Station.

I hope to take advantage of my stay here to

master French, or at least render it extremely useful to me afterward, and then get more German when I return, so that in the few years that I feel I must spend in getting the fundamentals of physics, chemistry, and mathematics, I may make a profound study of the really worthwhile literature that is to be had—to interest me. Then, I should be really ready to start a big work—if I am to be of use in science at all it should be then.

I hope you and your family are in most happy circumstances, and it is with a twinge of regret that I try to fancy the great throb of university life as it is about to begin again at this time. My God, but one's years at college are golden.

SIDNEY BLISS.

Nice, France, November 18, 1918.

Professor Firman E. Bear:

Dear Sir—I am writing you on the tail end of a seven-day leave I have taken after eighteen months' service in this man's army of ours. My orders were for Chamonix, at the foot of Mount Blanc, but when I changed cars at Aix-les-Bains (a big American leave center) an M. P. prevented my going on because my orders were not made out correctly for leave to Chamonix which is in the Haute Savoie department, and would have required French permission which had not been obtained for me. Staying in Aix-les-Bains for two days, I enjoyed seeing the mountainous type of country and had long walks and climbs around the beautiful Lake Bourget. Leaving Aix, I came to Lyon for a day, and then staying a night and a half day in the old port of Marseille, came on here to Nice.

Got up early this morning and took the beautiful trolley ride to Monaco and Monte Carlo. The country, as you may know, is extremely beautiful and I have enjoyed immensely the sight of these beautiful rock-strewn shores, the deep-blue Mediterranean Sea and the happy, holiday-appearing villas and hotels that are as common, if not so beautiful, as the palm, eucalyptus, olive and lemon trees that abound. Today I saw trees as large as any Ohio Buckeye that were what mother used to call a "rubber plant" when she tried in vain, year after year, to keep a little shoot of it alive in our home.

While away from the long hours of laboratory routine that, until now, have taken the best of my time and attention for the last seven months, I have taken time to think of

what I shall do on my return. It seems highly improbable that I shall return in time for the second semester, this year, and yet I do think that I shall be back in time to begin next fall. Tell me how this plan looks to you, please: Secure an assistantship in agricultural chemistry or bacteriology (latter preferred) at one of the following universities (order indicating preference): Cornell, Michigan, Wisconsin, Illinois—for two years taking courses, the first year in mathematics and physics, and the second year mathematics, physics, and physical chemistry. After that I should find myself prepared to work for the Ph. D.

Taken away, as I have been, from things agricultural and practically all scientific literature now for more than one and a half years, it will take much time for me to become familiar with what literature there is, sorting the good from the voluminously bad—I do hope Bonazzi finished his critical review of the literature on nitrification.

It is entirely probable that I shall get home much before next September (if my length of service is to be considered), but I do not know how that might influence my plans. At all events, I cannot see, with the practical experience I have obtained in the army, that I shall be justified in continuing with the Experiment Station before I continue the remainder of my preparation—for one can delay such things as elementary mathematics and physics quite too long.

May this find you well and happy. I am

Respectfully yours,

SIDNEY W. BLISS.

THE TRACTOR SCHOOL

Immediately after the close of Farmers' Week the department of Agricultural Engineering will give a two week's course in tractor study and operation. The attendance will be limited to two hundred and it is the object of the department to give an intensive course in tractor work. Instruction will be given in starting, ignition and valve timing, engine operation, lubrication, belt splicing, pipe fitting, soldering, babbiting, testing, and other phases of tractor care and operation.



FOOD AND THE WAR. By the United States Food Administration. New York: Houghton Mifflin Company. 80 cents.

In Part I of this book the writers have given a clear insight into the world food situation, which developed during the war and which still exists today. The economic explanation of the condition of international trade is clear and concise. It includes the sources of food supply, the amount produced, the factors in marketing and the availability of the markets. The means of government control of the food supply in the United States and other countries is given, also the organization and workings of the United States Food Administration.

The food nutrients are taken up separately, together with the foodstuffs in which they are most abundant. Each nutrient is treated from the standpoint of source, availability, composition, digestion, fuel value, quantity present in the common foodstuffs, the daily food requirement, and the methods of preparation adapted to it.

The adequate diet is presented from the standpoint of the quantity, quality, and composition of the food materials. The problem of community feeding which has become so apparent in the last few years is presented, and a possible solution indicated in public kitchens, restaurants in commercial establishments, and thru school lunches, assisted by city markets, cooperative stores and buying clubs.

Part 2 is a laboratory manual "planned to encourage scientific habits of thinking regarding food problems." It combines dietetic principles and chemistry in showing the effect of cooking on different food principles and food-

stuffs, and the method of cooking adapted to the various food materials. The last two chapters are given over to the preservation of food by canning and its demonstration.

As a whole the book is a clear, concise store of general information on the subject of food. It is not technical in expression nor burdened with detail. For one who has not made a study of food, or for one who does not require complete scientific detail, it is a very interesting and usable book. As is stated in the preface of the laboratory manual, it is designed for those "who do not intend to specialize in Home Economics, but who desire general training in the subject of food preparation."

The great value of the book lies in the fact that it presents the whole food problem to the mind without hiding the principles by a mass of detail. It enables you to get a clear, firm grasp upon the subject. The book is adaptable to use in the home and in elementary food study, because of its simplicity and lack of technical material. For this reason also it has a value for the extension worker and demonstration agent. It must be supplemented by personal experience or references from other more complete texts on the different phases of the subject.

LOIS LAMPE, '19.

MANUAL OF TREE DISEASES. By W. Howard Rankin. The Macmillan Company, New York City. 398 pps. Illustrated. \$2.50.

This book presents in a simple, popular style an accumulated knowledge of the diseases of trees. It is a valuable treatise for the general public; however, the rural public, the botanist, the forester, the tree surgeon, and the landscape gardener will find here a *capital book* for their needs.

In the first few chapters, the author presents the cause, the effect, and the control of the various tree diseases on the leaf, twig, branch, trunk, and root. Each discussion is followed by a list of references. The following chapters take up a discussion of the diseases of the various tree species; arranged alphabetically according to the common name of the tree. Each chapter is devoted to the diseases of a single tree species. The author, in his concluding chapters, does well to discuss tree surgery and spraying and dusting for leaf diseases. The appendix contains a general bibliography of the diseases. Owing to the limita-

tions of the book, the discussions are somewhat general.

The usefulness of the volume is greatly enhanced by a splendid index.

The book is well illustrated with photographs.

The volume is a valuable contribution to our literature of Forest Pathology.

N. W. SHERER.

A COUNTRY CHRONICLE. By Grant Showerman. The Century Company, New York. 349 pps. Illustrated. \$1.75.

A man develops from a boy, and remembers it with pleasant recollections. Each man has lived thru a different series of pastimes but the instincts of all boys are much the same. Each has the same joys and sorrows. Each boy is mystified by the number of relatives and friends his parents possess. It often seems that the petty things of childhood are the ones easiest remembered by the man. How many of these boyhood noises, curiosities, smells, and aspirations there are in the life of a farm boy. All fathers and mothers are the same in many respects, they are ever counseling deaf ears.

In this country chronicle we are impressed with the sincerity of the writing. The characters of the story seem to be living acquaintances. There are no sensations, gripping climaxes nor great childhood disappointments. It is the story of a ten-year-old boy visiting with older people, attending a dance, going to church, being taught at school, experiencing a love affair of his brother, helping at maple sugar-making, picking the first wild flowers and strawberries, listening to political discussions, eating at the home of his aunts, understanding his father better by a long ride together—these happenings told simply. One reads to the end for the book is a souvenir of the ten-year-old stage in a boy's life in the country amid chores, nature, and the influence of elders.

Altho the clear thoughts of a boy are expressed, the language used is not childish nor exaggerated.

A. C. H.

PRODUCTIVE SHEEP HUSBANDRY. By Professor W. C. Coffey, University of Illinois. J. B. Lippincott Company. (Productive Husbandry Series). \$2.50.

To student and stockman alike, this book will

surely make strong appeal. It is a text-book in triplicate, of service to the teacher and student in the class room, a source of information to the breeder or the shepherd, and to the sheep historian, a fascinating story of the development of the sheep industry in this country.

The arrangement of the book content, the discussions on breeds and judging, the treatises on feeding and flock management, the illustrations, and best of all the "sheepman-like" diction and method of expression are some of the reasons, in case of this book, for the universal benediction, "well done."

D. J. KAYS.

ALUMNI NOTES (Continued)

T. P. White, '07, is breeding Jersey cattle at Hooker, Ohio.

T. D. Phillips, '10, of the department of Rural Economics, is now in charge of the Farm Labor Bureaus in Ohio.

Virgil Overholt, '15, Extension Specialist in Rural Engineering, is in the service in France.

F. S. DeLashmutt, '16, is county agent of Athens County, Ohio, with headquarters at Athens.

H. J. Ridge, '13, is located at Wapakoneta, as county agent of Auglaize County.

E. P. Reed, '14, is county agent of Champaign County, Ohio, with headquarters at Urbana.

Allen Baker, '17, is farming at Milford, Ohio.

George Cassell, '17, is raising Durocs, Percherons and Delaines near Mt. Vernon, Ohio.

Ralph Christen, '17, is breeding Holsteins near LeMoyne, Wood County, Ohio.

SIMPLE LIVING

(Continued from page 365)

cies must necessarily change, and change suddenly. Women are called to be alert and ready to follow each change. The policy that cannot change is the necessity for simple living. The world shipping program is based on avoidance of waste.

Two women were riding in a train in Kentucky. One remarked that she was a widow.

"So I see," said the other, "you are wearing black."

"Yes, my husband was killed in a feud."

"Oh," remarked the other, "that is the trouble with those cheap cars."

Delaine Merino Sheep, B & C Types

The Big Ones Bred for Wool and Mutton

FRANK H. RUSSELL

Rural Delivery No. 3, Wakeman, Ohio.

EXTRA MEALS WASTEFUL

The real work of farm life leaves little time or appetite for afternoon teas and late suppers. Nevertheless the request of the Food Administration that the fourth meal be discontinued until food conditions are less serious suggests to all people simple hospitality. Company for dinner or supper should mean to the earnest woman a real chance to teach conservation in an agreeable form. The church supper or community dinner, too, presents an opportunity to demonstrate how good is a dinner of simple home products and when well-cooked, and should be a substitute for one of the three regular meals. The extra meal and lavishness in food ought to be considered an offense against humanity and good taste so long as war-torn Europe needs to be comforted and fed.

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Manufacturing Jeweler**FRATERNITY & CLASS PINS
LODGE EMBLEMS****Twenty East Gay St.****Automatic Phone 8017**

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TWO MORE COUNTY AGENTS

Coshocton and Monroe Counties have recently undertaken county agent work. G. C. Musgrove is the new agent in Coshocton County. He was graduated from the West Virginia College of Agriculture in 1914. At the time of his appointment, he was the county agent in Marshall County in West Virginia. He started the work on February 1, with headquarters at Coshocton.

Jean Gribble of Barlow, Washington County, is Monroe County's new agent. He attended the Ohio State University College of Agriculture and at the time of his appointment was engaged in farming. He began the work January 15, with headquarters at the courthouse at Woodsfield.

THE NON-PARTISAN LEAGUE

(Continued from page 343)

campaign fund, and there is small possibility of the leadership permitting a

funeral as long as there is any cash in the treasury. The doctrine of state ownership will be preached wherever an audience can be gathered together, but the American farmer is a hard-headed chap and the elections show that while he may have applauded the doctor he wants none of his medicine.

The League effort, because of its constant appeal to the farmer, has done good along the line of impressing upon the farmer the need for organization and for more persistent and systematic study of the problems of the farm, but this help has been in large part, if not altogether, over-balanced by the damage that has been done thru the planting of the seeds of false economic doctrine. Just in proportion as any class of people get it into their heads that their economic destiny can be worked out by some philanthropic system, with the government taking the part of a sort of benevolent Santa Claus, just in such proportion are individual effort and initiative halted. The Socialist scheme of state ownership has been pictured up here in the northwest as a sort of patent cure-all. Inaugurate it, and at once all farm troubles will cease. Weeds will wither, crops flourish and profits soar. The doctrine is directly antagonistic to the broadly practical one of individual effort which was being worked out with so much success when the Socialist carpet-baggers arrived. In proportion as the Socialists have been able to steer the farm procession off the road of "farm factory improvement" thru individual effort working for better farm production and more of it, this linked up with better marketing thru community cooperative organization, just in that proportion has the movement for farm development and farm prosperity been set back by the Non-Partisan League in the northwest.

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for All Uses

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Own Photographs or
Drawings.

MICE AND MEN

Robert Burns was both a farmer and a poet: On a certain occasion while plowing in late fall or early winter, his plow cut thru the nest of a field mouse, who scampered quickly away. Now, if anything is certain it is that this Scotch poet had a heart that was too kind and generous for his own good. His sympathetic and gentle nature was so touched by the "panic in the beastie," he sat down and wrote his immortal "To a Mouse." In it occurs the well known couplet:

"The best-laid schemes o' mice and men
Gang aft agley."

Had Bobbie Burns been an apple grower in Ohio, it is doubtful whether even his tender heart would have been inspired to poetry at the sight of a field mouse in trouble, for the apple grower has little sympathy to waste on this particular pest. The field mouse is now taking a terrible toll in the orchards of the state, girdling the trunks and gnawing bare the roots. There is no way of figuring the amount of destruction caused by these fellows. One grower reports losing fifteen trees in a season thru them. We were in a young orchard recently in which ninety-five percent of the trees had been girdled in just a few days.

The field mouse is certainly one of the great factors in calculating risks and costs in developing and caring for an orchard; it is an enemy that must be fought not by half or desultory methods but by thoro, and constant endeavor in a half dozen ways. There seems now to be no single or easy method of reducing the length of life or operations of this foe of the apple orchard.—R. B. CRICKSHANK

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The Breeder's Gaz
The Ohio Farmer

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Cheese Color Tablets, Liquid
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Chr. Hansen's Laboratory, Inc.,
Little Falls, N. Y.
Western Office, Milwaukee, Wis.

HENRY FORD SAYS—

These optimistic thoughts are from Henry Ford's new weekly, *The Dear-born Independent*, which, by the way, is teeming full of good, thoughtful articles:

This talk of the returned soldier being a problem hardly squares with the facts. He is only two millions of our twenty millions. He ought to fit back into business life as readily as he fitted into the army.

To hear some men talk you would think that the returning soldier would double our dependent population. He is bringing up the reserve force that will put the country over the top.

They talk of putting him to work building roads, booming worn-out real estate schemes, and so forth. It is a wonder they would not ask him about it first!

No doubt, after the out-door life of the army, thousands of young men will have no desire to enter the office and store again. They would prefer the farm. But why plan to settle them 3,000 miles from the chief markets? There are hundreds of thousands of unused acres of farm land at the very back doors of our large eastern markets.

Leave the big unsettled tracts of the west for wholesale reclamation and power projects. It would be splendid if we could enlist an army of men to make the desert bloom and make every mile of our streams and every foot of land productive. That would be an Army of the United States indeed!

There are big days coming to us. We must get ready for them. We must act as if we had the orders in our hands now. We must begin to organize our forces and processes so as to achieve the most and the best we can.

HOW TO MAKE A GOOD SPEECH

(Carried from page 347)

due heed to the principles of interest. He found that his sermons were not succeeding, and concluded that this was due to his talking about things about which his congregation had no concern. Accordingly, he went home and wrote out a list of things generally discussed in the community—"we-all-know's" he called them—and the following Sunday brought them all into his talk. From that day his reputation was made.

To prepare an interesting talk for a farmers' institute, then, the instructor must study the life, products, and industries of the neighborhood where he is to speak. It is for that reason that the director of farmers' institutes usually allows each community to select its own program from a long list of subjects and determine what lines of agriculture it wishes to consider. Similarly, the instructors ought to find out by a questionnaire something of the local conditions and the developments to be found in each community. To this should be added some consideration of present-day interests common to us all. This year all addresses can be made of especial interest to all farmers if they have some reference to war conditions, for it concerns us Americans vitally to know how to meet all patriotic needs and yet have due regard for our permanent interests, such as efficiency in equipment, labor, and resources.

But, it may be objected, that if a lecturer does not rise above the level of the interests of those he is striving to instruct, he will produce no elevation of them. True, but it must be remembered that interest colors everything it touches, and it is possible by appealing to the existing interests of a community as a starting-point, to lead on to a decided advance in the end. No one

would suppose for a minute that Beecher remained on the level of the community's "we-all-knows." If he had not carried his congregation beyond that, he would have never made his great reputation as a spiritual teacher.

DIRECT AND INDIRECT INTERESTS

Interests may, therefore, be classified as direct and indirect, and the latter are seen to be as genuine as the former. The poet and the artist have a direct interest in the flowers and blossoming apple trees; the florist and horticulturist have an indirect interest in them that is quite as sincere and strong. 'The miser loves money because of a direct interest—he loves to gaze upon its glitter and feel it filter thru his fingers. A wise man has an indirect interest in money, fully as strong, for to him its importance is attested by what it will buy—the comforts, or luxuries it will procure, and by the good it will enable him to do. He cares little whether it appears in the form of specie or greenbacks or even the prosaic draft. Nothing is more uninteresting and deadlly on ordinary occasions than a time-table, but day before yesterday I found myself staring down the columns of one as if I should look a hole thru it. It had an indirect but genuine interest for me, as it meant my trip to Columbus to speak to you and see my many friends. In adult life nearly all interests are indirect, and we may make a strong appeal to a man of intelligence and help him to inestimable progress if we will but take the pains to study his present interests. I commend to you the questionairing of every community you are expecting to instruct.

This type of appeal to interest is very far removed from the talk that is merely entertaining and results in no action upon the part of the hearer. The funny story and the gossipy anecdote do

touch a certain sort of interest, but they do not cause any stronger response than an appeal to those interests and life of the man which make him see that your material has a genuine bearing for him. The funny story may be pertinent, but it is at best a borrowed, reflected, and surreptitious interest, and often causes the hearer to forget the real issue. You need not worry about interesting your farm audiences, if you can in some way touch their life, and in this way only can you really instruct them. There is, then, nothing incongruous in attempting both interest and information, if you have but taken the pains to discover the abiding interests and life of your hearers and to think out the best way of reaching these interests thru your talks at the institutes. No farmers' institute instructor need stumble into the pitfall of being merely a funny man, if he studies the market to which he would bring his goods. His hearers will listen eagerly to all his instruction if it seems to touch their lives.

But, having discovered the interests of his agricultural hearers and brought his message into harmony with their life, how shall the institute instructor arrange his material? Is there any especially effective way of presenting instruction? Yes, the method that has been in vogue in American education for a generation and has had a wider and better influence upon teaching than all others until recently may be of value here. For, after all, the work of an instructor at a farmers' institute is simply teaching raised to the nth power. The principles of effective teaching anywhere will certainly apply here. The problems are much the same, except that the instruction is necessarily altogether by lecture and requires a wider use of charts and other objective aids, the course period is far shorter, and the

class is much more heterogeneous.

FIVE STEPS OF INSTRUCTION

This popular method of teaching, resting upon general principles, to which I have reference, is an adaptation of some suggestions made by the educational philosopher, Herbart, and is ordinarily known as the "five normal steps of instruction." It was introduced into this country in the early nineties of the last century by an enterprising set of young pedagogues, who had learned it abroad. While it has come somewhat into disrepute by the slavish adherence to it by the later Herbartians and their numerous pupils, it still has a certain value, and by modifying the procedure somewhat in keeping with a later contribution, of which I shall speak presently, it may prove very suggestive in arranging your material for farmers' institutes.

In its American form, this method of instruction contains the following steps: 1, preparation; 2, presentation; 3, comparison and abstraction; 4, generalization; 5, application.

In the first step, questions are raised by the teacher, to remind the pupil of familiar experiences of his own that may be of value to "prepare" him for studying the new topic. This is in harmony with what I have been saying about appealing to the interests of your hearers. For example, to give pupils some conception of a river, the teacher may first ask them questions about streams or brooks, with which they are already acquainted, or if they have never seen any, about water running in the gutters. As the second step, new material is "presented" to the pupils. Pictures or relief models of rivers are shown them; vivid oral descriptions are given; and if possible, the children are taken to see an actual river. These two

steps compose the acquisition of new facts.

The third and fourth steps are taken for the purpose of gaining a general principle or concept. The local river is "compared" with the Rhine, the Mississippi, and the Amazon, for example, and, after eliminating accidental and unessential features, the elements in common are "abstracted" to enable the pupils to form a "generalization" or concept of a river. Then, as the last step, the generalization is fixed in mind and given added significance by "applying" it to other streams, such as the Seine, the Rhine, the Po, and the Susquehanna.

This Herbartian method will afford a perfectly logical way of arranging your material, but it has decided drawbacks. It is a little inclined to be formal and wooden, especially when half-baked teachers have thought it necessary to carry it out literally, and have taken all the steps in just the order given, have devoted just so much time to each step, have elaborated each painfully, and failed to secure a really live recitation—the purpose that the method was especially designed to meet. It is the method of presentation that would appeal to one who knew all about the subject, rather than to the pupil, who was just learning. It is a logical and "apple-pie" order of arrangement that appears in textbooks and is not in harmony with the way in which a thing is first thought out—the psychological order of arrangement. Nevertheless this method of arrangement, when not overdone, has been of great service to instructors in the past, and it fits in fairly well with the advice I gave yesterday concerning the arrangement of material in a natural logical order. If it seems serviceable to you and you wish to know more about it, I would recommend your read-

ing McMurry's "Method of Recitation" (published by the Macmillan Company). Altho this book is frightfully diffuse and padded, it furnishes the best exposition of the Herbartian arrangement of material for American teachers.

I greatly regret that these talks have had to be so condensed and dry. I only hope that they have not been altogether barren. It will be but natural for you to refer to any further suggestions or questions to your own College of Education or to your chair of Agricultural Education. You should have the closest and most intimate cooperation with both of them, and I shall not feel hurt if you do not see fit to consult a man away off in Philadelphia. And the pleasant memory of this brief visit and series of discussions will always remain.

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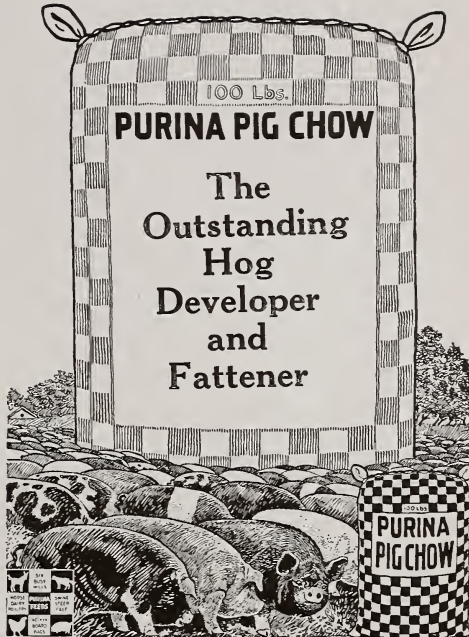
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ASKS FOR \$300,000 FOR DORM

A bill for the appropriation of \$300,000 to build a girls' dormitory has been introduced by John W. Gorrrell of Carroll County, in the Ohio Legislature. This will be referred to the finance committee.

President W. O. Thompson and Carl E. Steeb, secretary of the board of trustees, are going to ask the finance

committee to have the appropriation for the Woman's Building increased. The sum of \$150,000, which was first appropriated, is now insufficient and the term will expire by July 1. The plans for the Woman's Union are now completed. The building will have a gymnasium and clubrooms and will be situated between Oxley Hall and Mirror Lake—*Lantern*.

Another "Black" International

Aberdeen-Angus won Grand Championships over all breeds on SINGLE STEER, Steer HERD, CARCASS and BOYS' and GIRLS' Calf, losing only Fat Carlot (first time since 1909). The interbreed Grand Championship standing of the world's greatest show is now 11 out of 17 for Single Steer, 12 out of 15 for Steer Herd, 13 out of 17 for Fat Carlot, and 16 out of 17 for Carcass, in favor of the Aberdeen-Angus. Write for "Results of Internationals."

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Beginners' Class—Tuesdays and Thursdays—7:30.

Assembly—Fridays and Saturdays—8:15.

Emerson's Six-Piece Orchestra.

Advanced Class—Monday, 3:00.

Beginners' Class—Friday, 3:00.

Juvenile Class—Saturday, 2:00.

Private Lessons by appointment.

As the above calendar will be followed during the entire season all interested in dancing should cut out this page and reserve it for future reference.

For information pertaining to classes or assembly, call the phones given below and all questions will be cheerfully answered.

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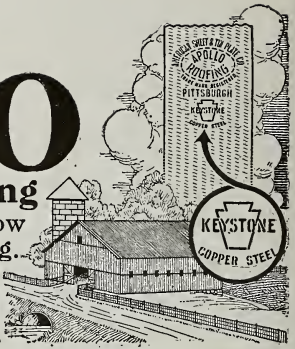
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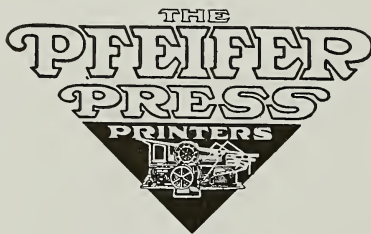
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Long life and continued growth in any line of manufacture depend mainly upon simple honesty—upon holding rigidly to the rule of quality first. Time has fully tested each and every John Deere tool and has given it Prestige—Time's badge of quality and success.

And Time's verdict today will be the verdict in the future so long as mankind gives to quality the recognition that is its due. Each coming year will see as the years in the past have seen, continued growth of the great industry that was started eighty years ago when John Deere honestly and painstakingly put superior quality into the plows that he made in his little shop of one anvil.

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We have had over 75 years' experience with farm machines. We know the kind of power they require—all of them. For over twelve years we have sold tractors that supplied that kind of power. We know from experience that the sizes and styles of tractors we sell today will work with the machines you depend upon for your success and prosperity. And—our tractors all operate successfully on cheap kerosene.

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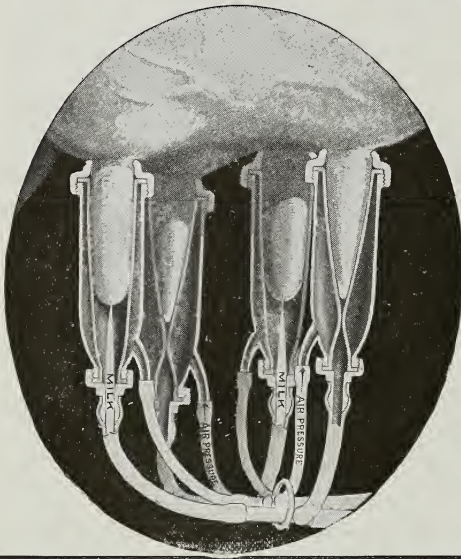
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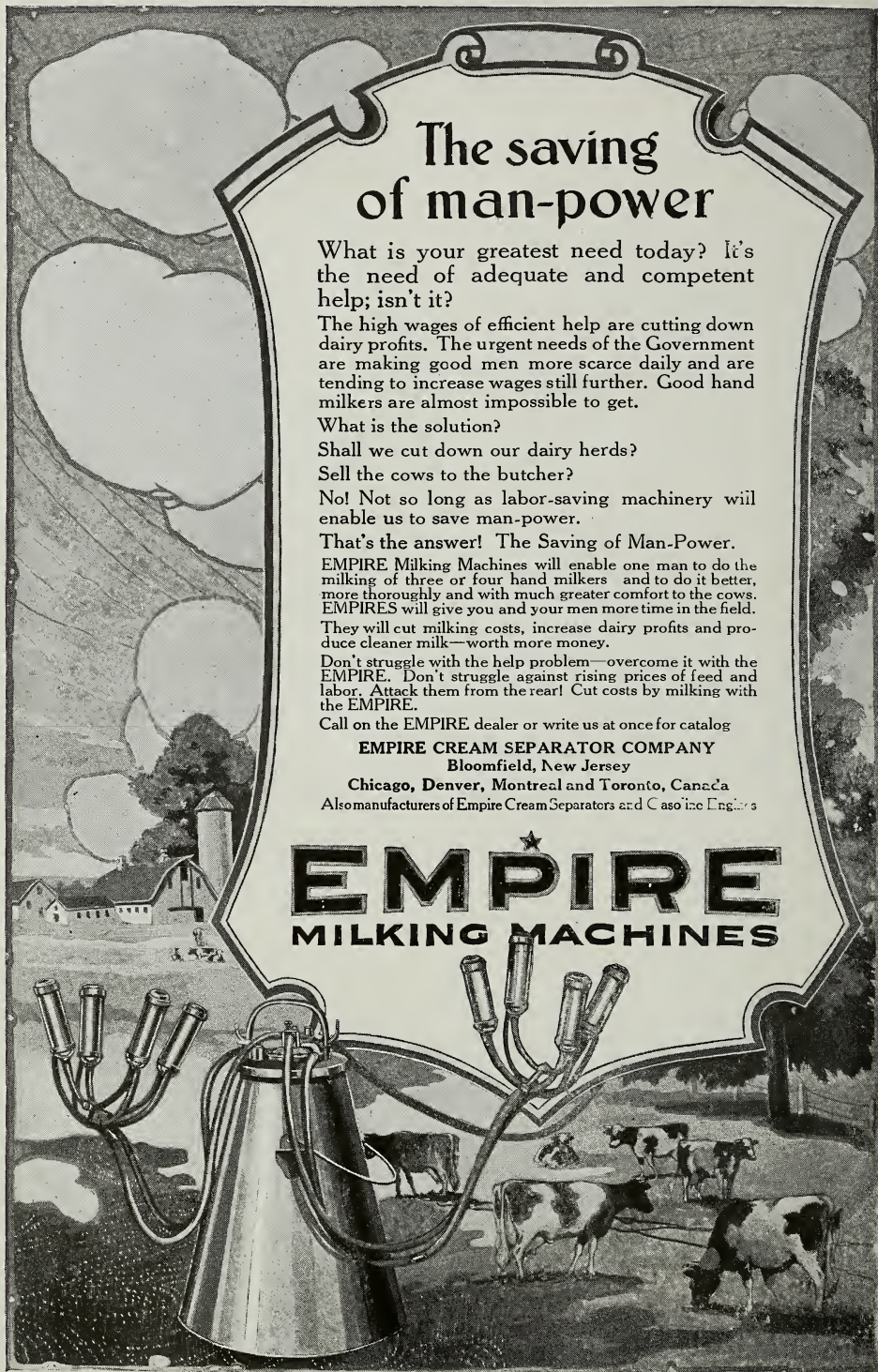
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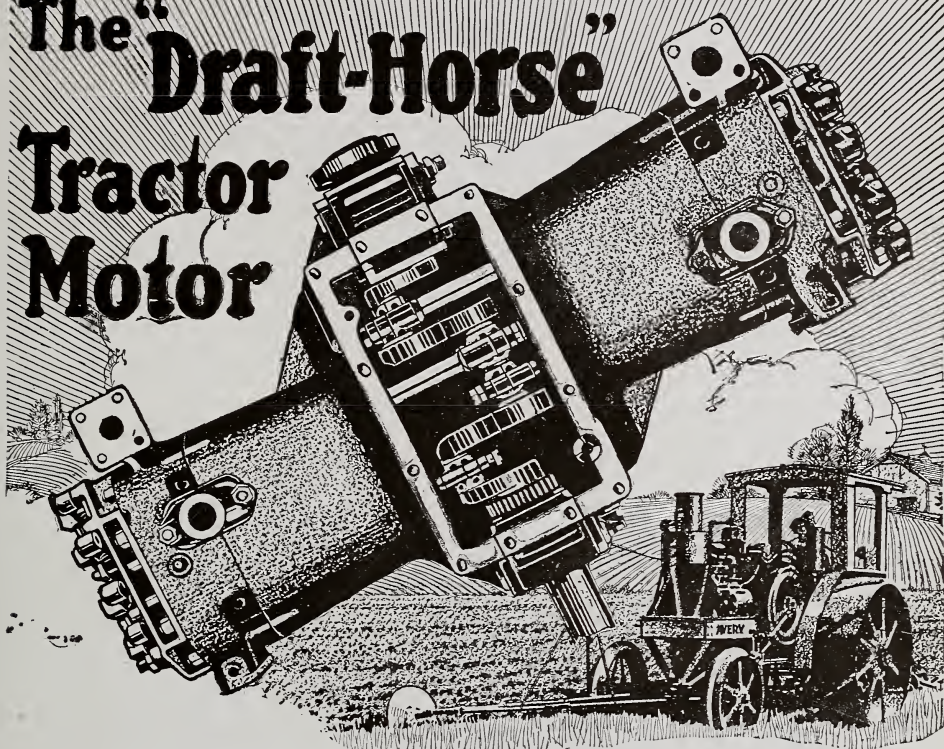
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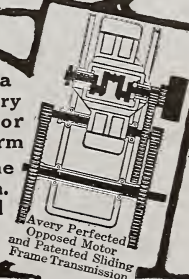


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\$550

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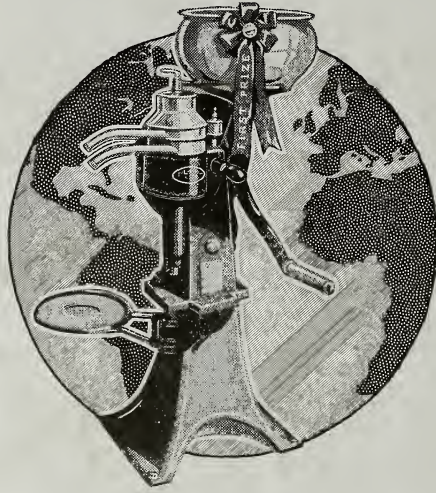
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